
codata
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GETTING STARTED

1.1 Readme

1.1.1 Introduction

codata is a Fortran library providing the fundamental physical constants according to CODATA. A C API allows usage from C, or can be used as a basis for other wrappers. Python wrapper allows easy usage from Python.

To use codata within your `fpm` project, add the following to your `fpm.toml` file:

```
[dependencies]
codata = { git="https://github.com/MilanSkocic/codata.git" }
```

The latest codata constants (2022) were integrated in the `stdlib`. The constants are implemented as derived type which carries the name, the value, the uncertainty and the unit. This library will be complementary to the constants defined in the `stdlib` by providing older values for the constants.

If you only need sources for the codata constants that you can integrate directly in your sources you may be interested by https://github.com/vmagnin/fundamental_constants.

1.1.2 Dependencies

```
gfortran>=10
fpm>=0.8
stdlib>=0.5
fpp>=3.0
```

1.1.3 Installation

A Makefile is provided, which uses `fpm`, for building the library.

- On windows, `msys2` needs to be installed. Add the msys2 binary (usually `C:\msys64\usr\bin`) to the path in order to be able to use make.
- On Darwin, the `gcc` toolchain needs to be installed.

Build: the configuration file will set all the environment variables necessary for the compilation

```
chmod +x configure.sh
./configure.sh
make
make install
make uninstall
```

1.1.4 License

MIT

1.2 Examples

1.2.1 Fortran

```
! EXAMPLE IN FORTRAN
program example_in_f
  use iso_fortran_env
  use codata
  implicit none

  print '(A)', '# ##### EXAMPLE IN FORTRAN #####'

  print '(A)', '# VERSION'
  print *, "version = ", get_version()

  print '(A)', '# CONSTANTS'
  print *, "c = ", SPEED_OF_LIGHT_IN_VACUUM%value

  print '(A)', '# UNCERTAINTY'
  print *, "u(c) = ", SPEED_OF_LIGHT_IN_VACUUM%uncertainty

  print '(A)', '# OLDER VALUES'
  print '(A, F23.16)', "Mu_2022(latest) = ", MOLAR_MASS_CONSTANT%value
  print '(A, F23.16)', "Mu_2018 = ", MOLAR_MASS_CONSTANT_2018%value
  print '(A, F23.16)', "Mu_2014 = ", MOLAR_MASS_CONSTANT_2014%value
  print '(A, F23.16)', "Mu_2010 = ", MOLAR_MASS_CONSTANT_2010%value

end program
```

1.2.2 C

```
/* EXAMPLE IN C */
#include <stdio.h>
#include "codata.h"

int main(void){

  printf("##### EXAMPLE IN C #####\n");

  printf("%s\n", "# VERSION");
  printf("version = %s\n", codata_get_version());

  printf("%s\n", "# CONSTANTS");
  printf("c = %f\n", SPEED_OF_LIGHT_IN_VACUUM.value);

  printf("%s\n", "# UNCERTAINTY");
  printf("u(c) = %f\n", SPEED_OF_LIGHT_IN_VACUUM.uncertainty);
```

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```

printf("%s\n", "# OLDER VALUES");
printf("Mu_2022(latest) = %23.16f\n", MOLAR_MASS_CONSTANT.value);
printf("Mu_2018 = %23.16f\n", MOLAR_MASS_CONSTANT_2018.value);
printf("Mu_2014 = %23.16f\n", MOLAR_MASS_CONSTANT_2014.value);
printf("Mu_2010 = %23.16f\n", MOLAR_MASS_CONSTANT_2010.value);

return 0;
}

```

1.2.3 Python

```

sys.path.insert(0, "../py/src/")
import pycodata

print("##### EXAMPLE IN PYTHON #####")
print("# VERSION")
print(f"version = {pycodata.__version__}")

print("# Constants")
print(f"c = ", pycodata.SPEED_OF_LIGHT_IN_VACUUM["value"])

print("# UNCERTAINTY")
print(f"u(c) = ", pycodata.SPEED_OF_LIGHT_IN_VACUUM["uncertainty"])

print("# OLDER VALUES")
print(f"Mu_2022 = ", pycodata.MOLAR_MASS_CONSTANT["value"])
print(f"Mu_2018 = ", pycodata.constants_2018.MOLAR_MASS_CONSTANT_2018["value"])
print(f"Mu_2014 = ", pycodata.constants_2014.MOLAR_MASS_CONSTANT_2014["value"])
print(f"Mu_2010 = ", pycodata.constants_2010.MOLAR_MASS_CONSTANT_2010["value"])

```

1.3 Changelog

1.3.1 2.3.1

- Refactoring the `configure.sh` script.
- Remove support for 3.14t. No official release on python.org.
- If binaries for Python 3.14t are needed you need to compile them by yourself.

1.3.2 2.3.0

- Remove support for Python 3.9 and add support for Python 3.14(t).

[Full changelog](#)

1.3.3 2.2.0

- Switch to UCRT64 for Windows binaries.
- Switch to sphinx documentation using `fspx`.
- Update references with publication for codata 2022.

- Update compilation flags for compatibility with `stdlib`.

Full changelog [here](#)

1.3.4 2.1.1

- No code change.
- Code refractoring and cleaning
- Update CI/CD workflows.

Full changelog [here](#)

1.3.5 2.1.0

- Roll back to C API in Fortran code: easier maintenance.
- Roll back to compiled C extension for python: easier maintenance.

Full changelog available at [github](#)

1.3.6 2.0.1

- Fix bug in version for Fortran code.

Full changelog available at [github](#)

1.3.7 2.0.0

- Drop compiled extensions for Python.
- Pure Python code for constants auto-generated as it is the case for the Fortran code.
- Pure C code for constants auto-generated as it is the case for the Fortran code.
- API break:
 - No more C API in the Fortran code.
 - Use the pure C code to build a C library.

Full changelog available at [github](#)

1.3.8 1.2.2

- Fix conflict that could occur with C API modules. Add prefix in module names.
- Cleanup and refractoring.
- Documentation update.

1.3.9 1.2.1

- Refractoring
- Merge back C API and python wrapper.

Full changelog available at [github](#)

1.3.10 1.2.0

- Refactoring
- Documentation update.

Full changelog available at [github](#)

1.3.11 1.1.0

- C API and Python wrapper moved to their own repositories.
 - [C wrapper](#)
 - [Python wrapper](#)
- API break: C API is no more provided by default. Use the optional C wrapper.
- Code cleanup
- Documentation update

Full changelog available at [github](#)

1.3.12 1.0.0

- Add codata values for 2010, 2014 and 2018.
- Code refractoring and code cleaning.
- Documentation update and switch to only FORD documentation.
- Rewrite code generators in python.
- Generate source code for stdlib.
- API break: constants are defined as DT like in stdlib.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.13 0.10.0

- Remove remove generation of the version module.
- Add tests using the test-drive framework.
- Explicit parameter constants for Fortran and protected constants for C API.
- Minor fixes in documentation.
- Code cleanup.
- Merge of all code for autogeneration in one file.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.14 0.9.0

- No API changes.
- Automatic generation of the version module.
- Generic Makefiles for automatic the building process of the library and the pywrapper.

- Add targets: build, build_debug, test, test_debug.
- Minor fixes in documentation.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.15 0.8.2

- No API changes.
- Improve Makefile for generating the source code at each compilation.
- Source generator rewritten in Fortran.
- Switch to pyproject.toml for the Python wrapper.
- Minor fixes in documentation.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.16 0.8.1

- Use shared library in python wrapper.
- Minor fixes in documentation.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.17 0.8.0

- Back to the approach with a library.
- Compatible with fpm.
- Configuration file for setting all the environmental variables.
- Global makefile for building a static library (through fpm) and a shared library.
- Automatic copy of the necessary sources for the python wrapper.
- Python wrapper built with the static library
 - no dependency on a shared library.
 - sources and static library embeded in the python wrapper.
- FORD for documenting the Fortran code.
- Integration of the FORD documentation into the main documentation with sphinx.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.18 0.7.1

- Minor fixes in generator code
- Add automatic copy of c sources for the python wrapper.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.19 0.7.0

- Migrate documentation from doxygen to sphinx+breathe.
- Add YEAR constant indicating the year of the codata constants.
- Refactoring

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.20 0.6.0

- Created documentation.
- Fixed missing uncertainties for Cpython.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.21 0.5.0

- Changed the complete approach by not generating a library but only source files for different languages.
- Available languages: Fortran, C, python, CPython

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.22 0.4.0

- Bring back pywrapper in the codata repository to sync versions.
- Improvements of the documentation.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.23 0.3.0

- Only last codata constants.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.24 0.2.1

- Integration of Intel Fortran compiler and MSVC in cmake scripts.
- Add specifications and instructions for compiling on Windows

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.25 0.2.0

- Bug fixes for the codata 2010.
- Bug fixes in the tests linked to the codata 2010.
- Add python wrapper for the number of constants method.

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

1.3.26 0.1.0

Implementation of:

- the parser of the codata raw data
- the generator of the Fortran modules
- the C API and C header
- the python wrapper (will be moved to its repository next release).

Full changelog available at [github](#)

Python wrapper available at [pypi](#).

2.1 Fortran

2.1.1 codata(3)

NAME

codata - Fundamental physical constants.

SYNOPSIS

```
use codata (Fortran)
#include "codata.h" (C)
import pycodata (Python)
```

DESCRIPTION

codata is a *Fortran* library providing the fundamental physical constants according to CODATA. A *C* API allows usage from *C*, or can be used as a basis for other wrappers. *Python* wrapper allows easy usage from *Python*.

The latest codata constants were released in 2022. All values for the codata constants are provided as double precision reals in a derived type codata_constant_type. The names are quite long and can be aliased with shorter names. A module level interface to_real is available for getting the constant value or uncertainty of a constant.

The latest values (2022) do not have the year as a suffix in their name. Older values can be used and they feature the year as a suffix in their name.

EXAMPLE

Minimal example in *Fortran*.

```
program example_in_f
use iso_fortran_env
use codata
implicit none

print '(A)', '##### EXAMPLE IN FORTRAN #####'

print '(A)', '# VERSION'
print *, "version = ", get_version()

print '(A)', '# CONSTANTS'
print *, "c = ", SPEED_OF_LIGHT_IN_VACUUM%value
```

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```

print '(A)', '# UNCERTAINTY'
print *, "u(c) = ", SPEED_OF_LIGHT_IN_VACUUM%uncertainty

print '(A)', '# OLDER VALUES'
print '(A, F23.16)', "Mu_2022(latest) = ", MOLAR_MASS_CONSTANT%value
print '(A, F23.16)', "Mu_2018 = ", MOLAR_MASS_CONSTANT_2018%value
print '(A, F23.16)', "Mu_2014 = ", MOLAR_MASS_CONSTANT_2014%value
print '(A, F23.16)', "Mu_2010 = ", MOLAR_MASS_CONSTANT_2010%value
end program

```

Minimal example in *C*.

```

#include <stdio.h>
#include "codata.h"

int main(void){

printf("##### EXAMPLE IN C #####");

printf("%s,# VERSION");
printf("version = %s, codata_get_version());

printf("%s,# CONSTANTS");
printf("c = %f, SPEED_OF_LIGHT_IN_VACUUM.value);

printf("%s,# UNCERTAINTY");
printf("u(c) = %f, SPEED_OF_LIGHT_IN_VACUUM.uncertainty);

printf("%s,# OLDER VALUES");
printf("Mu_2022(latest) = %23.16f, MOLAR_MASS_CONSTANT.value");
printf("Mu_2018 = %23.16f, MOLAR_MASS_CONSTANT_2018.value");
printf("Mu_2014 = %23.16f, MOLAR_MASS_CONSTANT_2014.value");
printf("Mu_2010 = %23.16f, MOLAR_MASS_CONSTANT_2010.value);

return 0;
}

```

Minimal example in *Python*

```

"""EXAMPLE in PYTHON"""
import sys
sys.path.insert(0, "../py/src/")
import pycodata

print("##### EXAMPLE IN PYTHON #####")
print("# VERSION")
print(f"version = {pycodata.__version__}")

print("# Constants")
print(f"c = {pycodata.SPEED_OF_LIGHT_IN_VACUUM['value']}")

```

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```

print("# UNCERTAINTY")
print(f"u(c) = ", pycodata.SPEED_OF_LIGHT_IN_VACUUM["uncertainty"])

print("# OLDER VALUES")
print(f"Mu_2022 = ", pycodata.MOLAR_MASS_CONSTANT["value"])
print(f"Mu_2018 = ", pycodata.constants_2018.MOLAR_MASS_CONSTANT_2018["value"])
print(f"Mu_2014 = ", pycodata.constants_2014.MOLAR_MASS_CONSTANT_2014["value"])
print(f"Mu_2010 = ", pycodata.constants_2010.MOLAR_MASS_CONSTANT_2010["value"])

```

SEE ALSO

List of constants:

- ALPHA_PARTICLE_ELECTRON_MASS_RATIO
- ALPHA_PARTICLE_MASS
- ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT
- ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT_IN_MEV
- ALPHA_PARTICLE_MASS_IN_U
- ALPHA_PARTICLE_MOLAR_MASS
- ALPHA_PARTICLE_PROTON_MASS_RATIO
- ALPHA_PARTICLE_RELATIVE_ATOMIC_MASS
- ALPHA_PARTICLE_RMS_CHARGE_RADIUS
- ANGSTROM_STAR
- ATOMIC_MASS_CONSTANT
- ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT
- ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT_IN_MEV
- ATOMIC_MASS_UNIT_ELECTRON_VOLT_RELATIONSHIP
- ATOMIC_MASS_UNIT_HARTREE_RELATIONSHIP
- ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP
- ATOMIC_MASS_UNIT_INVERSE_METER_RELATIONSHIP
- ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP
- ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP
- ATOMIC_MASS_UNIT_KILOGRAM_RELATIONSHIP
- ATOMIC_UNIT_OF_1ST_HYPERPOLARIZABILITY
- ATOMIC_UNIT_OF_2ND_HYPERPOLARIZABILITY
- ATOMIC_UNIT_OF_ACTION
- ATOMIC_UNIT_OF_CHARGE
- ATOMIC_UNIT_OF_CHARGE_DENSITY
- ATOMIC_UNIT_OF_CURRENT
- ATOMIC_UNIT_OF_ELECTRIC_DIPOLE_MOM

- ATOMIC_UNIT_OF_ELECTRIC_FIELD
- ATOMIC_UNIT_OF_ELECTRIC_FIELD_GRADIENT
- ATOMIC_UNIT_OF_ELECTRIC_POLARIZABILITY
- ATOMIC_UNIT_OF_ELECTRIC_POTENTIAL
- ATOMIC_UNIT_OF_ELECTRIC_QUADRUPOLE_MOM
- ATOMIC_UNIT_OF_ENERGY
- ATOMIC_UNIT_OF_FORCE
- ATOMIC_UNIT_OF_LENGTH
- ATOMIC_UNIT_OF_MAG_DIPOLE_MOM
- ATOMIC_UNIT_OF_MAG_FLUX_DENSITY
- ATOMIC_UNIT_OF_MAGNETIZABILITY
- ATOMIC_UNIT_OF_MASS
- ATOMIC_UNIT_OF_MOMENTUM
- ATOMIC_UNIT_OF_PERMITTIVITY
- ATOMIC_UNIT_OF_TIME
- ATOMIC_UNIT_OF_VELOCITY
- AVOGADRO_CONSTANT
- BOHR_MAGNETON
- BOHR_MAGNETON_IN_EV_T
- BOHR_MAGNETON_IN_HZ_T
- BOHR_MAGNETON_IN_INVERSE_METER_PER_TESLA
- BOHR_MAGNETON_IN_K_T
- BOHR_RADIUS
- BOLTZMANN_CONSTANT
- BOLTZMANN_CONSTANT_IN_EV_K
- BOLTZMANN_CONSTANT_IN_HZ_K
- BOLTZMANN_CONSTANT_IN_INVERSE_METER_PER_KELVIN
- CHARACTERISTIC_IMPEDANCE_OF_VACUUM
- CLASSICAL_ELECTRON_RADIUS
- COMPTON_WAVELENGTH
- CONDUCTANCE_QUANTUM
- CONVENTIONAL_VALUE_OF_AMPERE_90
- CONVENTIONAL_VALUE_OF_COULOMB_90
- CONVENTIONAL_VALUE_OF_FARAD_90
- CONVENTIONAL_VALUE_OF_HENRY_90
- CONVENTIONAL_VALUE_OF_JOSEPHSON_CONSTANT

- CONVENTIONAL_VALUE_OF_OHM_90
- CONVENTIONAL_VALUE_OF_VOLT_90
- CONVENTIONAL_VALUE_OF_VON_KLITZING_CONSTANT
- CONVENTIONAL_VALUE_OF_WATT_90
- COPPER_X_UNIT
- DEUTERON_ELECTRON_MAG_MOM_RATIO
- DEUTERON_ELECTRON_MASS_RATIO
- DEUTERON_G_FACTOR
- DEUTERON_MAG_MOM
- DEUTERON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- DEUTERON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- DEUTERON_MASS
- DEUTERON_MASS_ENERGY_EQUIVALENT
- DEUTERON_MASS_ENERGY_EQUIVALENT_IN_MEV
- DEUTERON_MASS_IN_U
- DEUTERON_MOLAR_MASS
- DEUTERON_NEUTRON_MAG_MOM_RATIO
- DEUTERON_PROTON_MAG_MOM_RATIO
- DEUTERON_PROTON_MASS_RATIO
- DEUTERON_RELATIVE_ATOMIC_MASS
- DEUTERON_RMS_CHARGE_RADIUS
- ELECTRON_CHARGE_TO_MASS_QUOTIENT
- ELECTRON_DEUTERON_MAG_MOM_RATIO
- ELECTRON_DEUTERON_MASS_RATIO
- ELECTRON_G_FACTOR
- ELECTRON_GYROMAG_RATIO
- ELECTRON_GYROMAG_RATIO_IN_MHZ_T
- ELECTRON_HELION_MASS_RATIO
- ELECTRON_MAG_MOM
- ELECTRON_MAG_MOM_ANOMALY
- ELECTRON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- ELECTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- ELECTRON_MASS
- ELECTRON_MASS_ENERGY_EQUIVALENT
- ELECTRON_MASS_ENERGY_EQUIVALENT_IN_MEV
- ELECTRON_MASS_IN_U

- ELECTRON_MOLAR_MASS
- ELECTRON_MUON_MAG_MOM_RATIO
- ELECTRON_MUON_MASS_RATIO
- ELECTRON_NEUTRON_MAG_MOM_RATIO
- ELECTRON_NEUTRON_MASS_RATIO
- ELECTRON_PROTON_MAG_MOM_RATIO
- ELECTRON_PROTON_MASS_RATIO
- ELECTRON_RELATIVE_ATOMIC_MASS
- ELECTRON_TAU_MASS_RATIO
- ELECTRON_TO_ALPHA_PARTICLE_MASS_RATIO
- ELECTRON_TO_SHIELDED_HELIUM_MAG_MOM_RATIO
- ELECTRON_TO_SHIELDED_PROTON_MAG_MOM_RATIO
- ELECTRON_TRITON_MASS_RATIO
- ELECTRON_VOLT
- ELECTRON_VOLT_ATOMIC_MASS_UNIT_RELATIONSHIP
- ELECTRON_VOLT_HARTREE_RELATIONSHIP
- ELECTRON_VOLT_HERTZ_RELATIONSHIP
- ELECTRON_VOLT_INVERSE_METER_RELATIONSHIP
- ELECTRON_VOLT_JOULE_RELATIONSHIP
- ELECTRON_VOLT_KELVIN_RELATIONSHIP
- ELECTRON_VOLT_KILOGRAM_RELATIONSHIP
- ELEMENTARY_CHARGE
- ELEMENTARY_CHARGE_OVER_H_BAR
- FARADAY_CONSTANT
- FERMI_COUPLING_CONSTANT
- FINE_STRUCTURE_CONSTANT
- FIRST_RADIATION_CONSTANT
- FIRST_RADIATION_CONSTANT_FOR_SPECTRAL_RADIANCEx
- HARTREE_ATOMIC_MASS_UNIT_RELATIONSHIP
- HARTREE_ELECTRON_VOLT_RELATIONSHIP
- HARTREE_ENERGY
- HARTREE_ENERGY_IN_EV
- HARTREE_HERTZ_RELATIONSHIP
- HARTREE_INVERSE_METER_RELATIONSHIP
- HARTREE_JOULE_RELATIONSHIP
- HARTREE_KELVIN_RELATIONSHIP

- HARTREE_KILOGRAM_RELATIONSHIP
- HELION_ELECTRON_MASS_RATIO
- HELION_G_FACTOR
- HELION_MAG_MOM
- HELION_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- HELION_MASS
- HELION_MASS_ENERGY_EQUIVALENT
- HELION_MASS_ENERGY_EQUIVALENT_IN_MEV
- HELION_MASS_IN_U
- HELION_MOLAR_MASS
- HELION_PROTON_MASS_RATIO
- HELION_RELATIVE_ATOMIC_MASS
- HELION_SHIELDING_SHIFT
- HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP
- HERTZ_ELECTRON_VOLT_RELATIONSHIP
- HERTZ_HARTREE_RELATIONSHIP
- HERTZ_INVERSE_METER_RELATIONSHIP
- HERTZ_JOULE_RELATIONSHIP
- HERTZ_KELVIN_RELATIONSHIP
- HERTZ_KILOGRAM_RELATIONSHIP
- HYPERFINE_TRANSITION_FREQUENCY_OF_CS_133
- INVERSE_FINE_STRUCTURE_CONSTANT
- INVERSE_METER_ATOMIC_MASS_UNIT_RELATIONSHIP
- INVERSE_METER_ELECTRON_VOLT_RELATIONSHIP
- INVERSE_METER_HARTREE_RELATIONSHIP
- INVERSE_METER_HERTZ_RELATIONSHIP
- INVERSE_METER_JOULE_RELATIONSHIP
- INVERSE_METER_KELVIN_RELATIONSHIP
- INVERSE_METER_KILOGRAM_RELATIONSHIP
- INVERSE_OF_CONDUCTANCE_QUANTUM
- JOSEPHSON_CONSTANT
- JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP
- JOULE_ELECTRON_VOLT_RELATIONSHIP
- JOULE_HARTREE_RELATIONSHIP
- JOULE_HERTZ_RELATIONSHIP

- JOULE_INVERSE_METER_RELATIONSHIP
- JOULE_KELVIN_RELATIONSHIP
- JOULE_KILOGRAM_RELATIONSHIP
- KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP
- KELVIN_ELECTRON_VOLT_RELATIONSHIP
- KELVIN_HARTREE_RELATIONSHIP
- KELVIN_HERTZ_RELATIONSHIP
- KELVIN_INVERSE_METER_RELATIONSHIP
- KELVIN_JOULE_RELATIONSHIP
- KELVIN_KILOGRAM_RELATIONSHIP
- KILOGRAM_ATOMIC_MASS_UNIT_RELATIONSHIP
- KILOGRAM_ELECTRON_VOLT_RELATIONSHIP
- KILOGRAM_HARTREE_RELATIONSHIP
- KILOGRAM_HERTZ_RELATIONSHIP
- KILOGRAM_INVERSE_METER_RELATIONSHIP
- KILOGRAM_JOULE_RELATIONSHIP
- KILOGRAM_KELVIN_RELATIONSHIP
- LATTICE_PARAMETER_OF_SILOCON
- LATTICE_SPACING_OF_IDEAL_SI_220
- LOSCHMIDT_CONSTANT_273_15_K_100_KPA
- LOSCHMIDT_CONSTANT_273_15_K_101_325_KPA
- LUMINOUS_EFFICACY
- MAG_FLUX_QUANTUM
- MOLAR_GAS_CONSTANT
- MOLAR_MASS_CONSTANT
- MOLAR_MASS_OF_CARBON_12
- MOLAR_PLANCK_CONSTANT
- MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_100_KPA
- MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_101_325_KPA
- MOLAR_VOLUME_OF_SILOCON
- MOLYBDENUM_X_UNIT
- MUON_COMPTON_WAVELENGTH
- MUON_ELECTRON_MASS_RATIO
- MUON_G_FACTOR
- MUON_MAG_MOM
- MUON_MAG_MOM_ANOMALY

- MUON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- MUON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- MUON_MASS
- MUON_MASS_ENERGY_EQUIVALENT
- MUON_MASS_ENERGY_EQUIVALENT_IN_MEV
- MUON_MASS_IN_U
- MUON_MOLAR_MASS
- MUON_NEUTRON_MASS_RATIO
- MUON_PROTON_MAG_MOM_RATIO
- MUON_PROTON_MASS_RATIO
- MUON_TAU_MASS_RATIO
- NATURAL_UNIT_OF_ACTION
- NATURAL_UNIT_OF_ACTION_IN_EV_S
- NATURAL_UNIT_OF_ENERGY
- NATURAL_UNIT_OF_ENERGY_IN_MEV
- NATURAL_UNIT_OF_LENGTH
- NATURAL_UNIT_OF_MASS
- NATURAL_UNIT_OF_MOMENTUM
- NATURAL_UNIT_OF_MOMENTUM_IN_MEV_C
- NATURAL_UNIT_OF_TIME
- NATURAL_UNIT_OF_VELOCITY
- NEUTRON_COMPTON_WAVELENGTH
- NEUTRON_ELECTRON_MAG_MOM_RATIO
- NEUTRON_ELECTRON_MASS_RATIO
- NEUTRON_G_FACTOR
- NEUTRON_GYROMAG_RATIO
- NEUTRON_GYROMAG_RATIO_IN_MHZ_T
- NEUTRON_MAG_MOM
- NEUTRON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- NEUTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- NEUTRON_MASS
- NEUTRON_MASS_ENERGY_EQUIVALENT
- NEUTRON_MASS_ENERGY_EQUIVALENT_IN_MEV
- NEUTRON_MASS_IN_U
- NEUTRON_MOLAR_MASS
- NEUTRON_MUON_MASS_RATIO

- NEUTRON_PROTON_MAG_MOM_RATIO
- NEUTRON_PROTON_MASS_DIFFERENCE
- NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT
- NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT_IN_MEV
- NEUTRON_PROTON_MASS_DIFFERENCE_IN_U
- NEUTRON_PROTON_MASS_RATIO
- NEUTRON_RELATIVE_ATOMIC_MASS
- NEUTRON_TAU_MASS_RATIO
- NEUTRON_TO_SHIELDED_PROTON_MAG_MOM_RATIO
- NEWTONIAN_CONSTANT_OF_GRAVITATION
- NEWTONIAN_CONSTANT_OF_GRAVITATION_OVER_H_BAR_C
- NUCLEAR_MAGNETON
- NUCLEAR_MAGNETON_IN_EV_T
- NUCLEAR_MAGNETON_IN_INVERSE_METER_PER_TESLA
- NUCLEAR_MAGNETON_IN_K_T
- NUCLEAR_MAGNETON_IN_MHZ_T
- PLANCK_CONSTANT
- PLANCK_CONSTANT_IN_EV_HZ
- PLANCK_LENGTH
- PLANCK_MASS
- PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV
- PLANCK_TEMPERATURE
- PLANCK_TIME
- PROTON_CHARGE_TO_MASS_QUOTIENT
- PROTON_COMPTON_WAVELENGTH
- PROTON_ELECTRON_MASS_RATIO
- PROTON_G_FACTOR
- PROTON_GYROMAG_RATIO
- PROTON_GYROMAG_RATIO_IN_MHZ_T
- PROTON_MAG_MOM
- PROTON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- PROTON_MAG_SHIELDING_CORRECTION
- PROTON_MASS
- PROTON_MASS_ENERGY_EQUIVALENT
- PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV

- PROTON_MASS_IN_U
- PROTON_MOLAR_MASS
- PROTON_MUON_MASS_RATIO
- PROTON_NEUTRON_MAG_MOM_RATIO
- PROTON_NEUTRON_MASS_RATIO
- PROTON_RELATIVE_ATOMIC_MASS
- PROTON_RMS_CHARGE_RADIUS
- PROTON_TAU_MASS_RATIO
- QUANTUM_OF_CIRCULATION
- QUANTUM_OF_CIRCULATION_TIMES_2
- REDUCED_COMPTON_WAVELENGTH
- REDUCED_MUON_COMPTON_WAVELENGTH
- REDUCED_NEUTRON_COMPTON_WAVELENGTH
- REDUCED_PLANCK_CONSTANT
- REDUCED_PLANCK_CONSTANT_IN_EV_S
- REDUCED_PLANCK_CONSTANT_TIMES_C_IN_MEV_FM
- REDUCED_PROTON_COMPTON_WAVELENGTH
- REDUCED_TAU_COMPTON_WAVELENGTH
- RYDBERG_CONSTANT
- RYDBERG_CONSTANT_TIMES_C_IN_HZ
- RYDBERG_CONSTANT_TIMES_HC_IN_EV
- RYDBERG_CONSTANT_TIMES_HC_IN_J
- SACKUR_TETRODE_CONSTANT_1_K_100_KPA
- SACKUR_TETRODE_CONSTANT_1_K_101_325_KPA
- SECOND_RADIATION_CONSTANT
- SHIELDED_HELION_GYROMAG_RATIO
- SHIELDED_HELION_GYROMAG_RATIO_IN_MHZ_T
- SHIELDED_HELION_MAG_MOM
- SHIELDED_HELION_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- SHIELDED_HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- SHIELDED_HELION_TO_PROTON_MAG_MOM_RATIO
- SHIELDED_HELION_TO_SHIELDED_PROTON_MAG_MOM_RATIO
- SHIELDED_PROTON_GYROMAG_RATIO
- SHIELDED_PROTON_GYROMAG_RATIO_IN_MHZ_T
- SHIELDED_PROTON_MAG_MOM
- SHIELDED_PROTON_MAG_MOM_TO_BOHR_MAGNETON_RATIO

- SHIELDED_PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- SHIELDING_DIFFERENCE_OF_D_AND_P_IN_HD
- SHIELDING_DIFFERENCE_OF_T_AND_P_IN_HT
- SPEED_OF_LIGHT_IN_VACUUM
- STANDARD_ACCELERATION_OF_GRAVITY
- STANDARD_ATMOSPHERE
- STANDARD_STATE_PRESSURE
- STEFAN_BOLTZMANN_CONSTANT
- TAU_COMPTON_WAVELENGTH
- TAU_ELECTRON_MASS_RATIO
- TAU_ENERGY_EQUIVALENT
- TAU_MASS
- TAU_MASS_ENERGY_EQUIVALENT
- TAU_MASS_IN_U
- TAU_MOLAR_MASS
- TAU_MUON_MASS_RATIO
- TAU_NEUTRON_MASS_RATIO
- TAU_PROTON_MASS_RATIO
- THOMSON_CROSS_SECTION
- TRITON_ELECTRON_MASS_RATIO
- TRITON_G_FACTOR
- TRITON_MAG_MOM
- TRITON_MAG_MOM_TO_BOHR_MAGNETON_RATIO
- TRITON_MAG_MOM_TO_NUCLEAR_MAGNETON_RATIO
- TRITON_MASS
- TRITON_MASS_ENERGY_EQUIVALENT
- TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV
- TRITON_MASS_IN_U
- TRITON_MOLAR_MASS
- TRITON_PROTON_MASS_RATIO
- TRITON_RELATIVE_ATOMIC_MASS
- TRITON_TO_PROTON_MAG_MOM_RATIO
- UNIFIED_ATOMIC_MASS_UNIT
- VACUUM_ELECTRIC_PERMITTIVITY
- VACUUM_MAG_PERMEABILITY
- VON_KLITZING_CONSTANT

- WEAK_MIXING_ANGLE
- WIEN_FREQUENCY_DISPLACEMENT_LAW_CONSTANT
- WIEN_WAVELENGTH_DISPLACEMENT_LAW_CONSTANT
- W_TO_Z_MASS_RATIO

2.1.2 get_version(3)

NAME

get_version - Get the version.

LIBRARY

codata (libcodata, **-lcodata**)

SYNOPSIS

```
function get_version()result(fptr)
```

DESCRIPTION

Get the version of library.

RETURN VALUE

o character(len=:), pointer :: fptr
Version as a deferred-length pointer.

EXAMPLE

Minimal example

```
print *, get_version()
```

2.2 C

```
#ifndef CODATA_H
#define CODATA_H
#if __MSC_VER
#define ADD_IMPORT __declspec(dllexport)
#else
#define ADD_IMPORT
#endif

extern char* codata_get_version(void);

struct codata_constant_type{
    char name[65];
    double value;
    double uncertainty;
    char unit[33];
};
```

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```

ADD_IMPORT extern const int YEAR_2010;
ADD_IMPORT extern const struct codata_constant_type LATTICE_SPACING_OF_SILICON_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_ELECTRON_MASS_RATIO_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_IN_MEV_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_PROTON_MASS_RATIO_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ANGSTROM_STAR_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
↪EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
↪EQUIVALENT_IN_MEV_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_ELECTRON_VOLT_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HARTREE_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_INVERSE_METER_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KILOGRAM_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_1ST_
↪HYPERPOLARIZABILITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_2ND_
↪HYPERPOLARIZABILITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ACTION_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_DENSITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CURRENT_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_DIPOLE_MOM_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_FIELD_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_FIELD_
↪GRADIENT_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_
↪POLARIZABILITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_POTENTIAL_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_QUADRUPOLE_
↪2010;

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```

→MOM_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ENERGY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_FORCE_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_LENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_DIPOLE_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_FLUX_DENSITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAGNETIZABILITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MOMUM_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_PERMITTIVITY_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_TIME_2010;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_VELOCITY_2010;
ADD_IMPORT extern const struct codata_constant_type AVOGADRO_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_EV_T_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_HZ_T_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_INVERSE_METERS_PER_
→TESLA_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_K_T_2010;
ADD_IMPORT extern const struct codata_constant_type BOHR_RADIUS_2010;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_EV_K_2010;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_HZ_K_2010;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_INVERSE_METERS_
→PER_KELVIN_2010;
ADD_IMPORT extern const struct codata_constant_type CHARACTERISTIC_IMPEDANCE_OF_VACUUM_
→2010;
ADD_IMPORT extern const struct codata_constant_type CLASSICAL_ELECTRON_RADIUS_2010;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH_OVER_2_PI_2010;
ADD_IMPORT extern const struct codata_constant_type CONDUCTANCE_QUANTUM_2010;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_JOSEPHSON_
→CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VON_KLITZING_
→CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type CU_X_UNIT_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_BOHR_MAGNETON_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_IN_
→MEV_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_NEUTRON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MAG_MOM_RATIO_2010;

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```

ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RMS_CHARGE_RADIUS_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRIC_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_CHARGE_TO_MASS_QUOTIENT_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_OVER_2_PI_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_HELION_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_ANOMALY_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_IN_
↪MEV_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TAU_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_ALPHA_PARTICLE_MASS_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_HELIUM_MAG_MOM_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_PROTON_MAG_MOM_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TRITON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_ATOMIC_MASS_UNIT_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HARTREE_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HERTZ_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_INVERSE_METER_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_JOULE_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KELVIN_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KILOGRAM_RELATIONSHIP_

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→2010;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_2010;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_OVER_H_2010;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT_FOR_CONVENTIONAL_
→ELECTRIC_CURRENT_2010;
ADD_IMPORT extern const struct codata_constant_type FERMI_COUPLING_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type FINE_STRUCTURE_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_FOR_
→SPECTRAL_RADIANC_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ATOMIC_MASS_UNIT_
→RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ELECTRON_VOLT_RELATIONSHIP_
→2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_IN_EV_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_HERTZ_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_INVERSE_METER_RELATIONSHIP_
→2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_JOULE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KELVIN_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KILOGRAM_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_BOHR_MAGNETON_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_IN_MEV_
→2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type HELION_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP_
→2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ELECTRON_VOLT_RELATIONSHIP_
→2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_HARTREE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_INVERSE_METER_RELATIONSHIP_
→2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_JOULE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KELVIN_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KILOGRAM_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_FINE_STRUCTURE_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ATOMIC_MASS_UNIT_
→RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ELECTRON_VOLT_
→RELATIONSHIP_2010;

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```

ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HARTREE_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HERTZ_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_JOULE_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KELVIN_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KILOGRAM_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type INVERSE_OF_CONDUCTANCE_QUANTUM_2010;
ADD_IMPORT extern const struct codata_constant_type JOSEPHSON_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_ELECTRON_VOLT_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_HARTREE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_HERTZ_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_INVERSE_METER_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_KELVIN_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type JOULE_KILOGRAM_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ELECTRON_VOLT_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HARTREE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HERTZ_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_INVERSE_METER_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_JOULE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KELVIN_KILOGRAM_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ATOMIC_MASS_UNIT_
↪RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ELECTRON_VOLT_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HARTREE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HERTZ_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_INVERSE_METER_RELATIONSHIP_
↪2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_JOULE_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_KELVIN_RELATIONSHIP_2010;
ADD_IMPORT extern const struct codata_constant_type LATTICE_PARAMETER_OF_SILOCON_2010;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_100_KPA_
↪2010;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_101_325_
↪KPA_2010;
ADD_IMPORT extern const struct codata_constant_type MAG_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type MAG_FLUX_QUANTUM_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_GAS_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_OF_CARBON_12_2010;

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ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT_TIMES_C_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪100_KPA_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪101_325_KPA_2010;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_SILICON_2010;
ADD_IMPORT extern const struct codata_constant_type MO_X_UNIT_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH_OVER_2_PI_
↪2010;
ADD_IMPORT extern const struct codata_constant_type MUON_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_ANOMALY_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_BOHR_MAGNETON_RATIO_
↪2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_NEUTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type MUON_TAU_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_IN_EV_S_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_IN_MEV_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_LENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMUM_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMUM_IN_MEV_C_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_TIME_2010;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_VELOCITY_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH_OVER_2_PI_
↪2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_OVER_2_PI_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2010;

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ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_IN_
↪MEV_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MUON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
↪ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
↪ENERGY_EQUIVALENT_IN_MEV_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_IN_U_
↪2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TAU_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TO_SHIELDED_PROTON_MAG_MOM_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪2010;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪OVER_H_BAR_C_2010;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_2010;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_EV_T_2010;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_INVERSE_METERS_
↪PER_TESLA_2010;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_K_T_2010;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_MHZ_T_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_IN_EV_S_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_IN_EV_S_
↪2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_TIMES_C_IN_
↪MEV_FM_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_LENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV_
↪2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TEMPERATURE_2010;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TIME_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_CHARGE_TO_MASS_QUOTIENT_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH_OVER_2_PI_
↪2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_OVER_2_PI_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_BOHR_MAGNETON_

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→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_SHIELDING_CORRECTION_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV_
→2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_MUON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_RMS_CHARGE_RADIUS_2010;
ADD_IMPORT extern const struct codata_constant_type PROTON_TAU_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_2010;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_TIMES_2_2010;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_C_IN_HZ_2010;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_EV_2010;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_J_2010;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_100_KPA_
→2010;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_101_325_
→KPA_2010;
ADD_IMPORT extern const struct codata_constant_type SECOND_RADIATION_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO_OVER_2_
→PI_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_MAG_MOM_TO_BOHR_
→MAGNETON_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_MAG_MOM_TO_NUCLEAR_
→MAGNETON_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_TO_PROTON_MAG_MOM_
→RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_TO_SHIELDED_PROTON_
→MAG_MOM_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_OVER_2_
→PI_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_BOHR_
→MAGNETON_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_NUCLEAR_
→MAGNETON_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type SPEED_OF_LIGHT_IN_VACUUM_2010;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ACCELERATION_OF_GRAVITY_
→2010;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ATMOSPHERE_2010;
ADD_IMPORT extern const struct codata_constant_type STANDARD_STATE_PRESSURE_2010;
ADD_IMPORT extern const struct codata_constant_type STEFAN_BOLTZMANN_CONSTANT_2010;

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ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH_OVER_2_PI_
↪2010;
ADD_IMPORT extern const struct codata_constant_type TAU_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_MUON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_NEUTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TAU_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type THOMSON_CROSS_SECTION_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_ELECTRON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_G_FACTOR_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_IN_U_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_MOLAR_MASS_2010;
ADD_IMPORT extern const struct codata_constant_type TRITON_PROTON_MASS_RATIO_2010;
ADD_IMPORT extern const struct codata_constant_type UNIFIED_ATOMIC_MASS_UNIT_2010;
ADD_IMPORT extern const struct codata_constant_type VON_KLITZING_CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type WEAK_MIXING_ANGLE_2010;
ADD_IMPORT extern const struct codata_constant_type WIEN_FREQUENCY_DISPLACEMENT_LAW_
↪CONSTANT_2010;
ADD_IMPORT extern const struct codata_constant_type WIEN_WAVELENGTH_DISPLACEMENT_LAW_
↪CONSTANT_2010;

ADD_IMPORT extern const int YEAR_2014;
ADD_IMPORT extern const struct codata_constant_type LATTICE_SPACING_OF_SILICON_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_ELECTRON_MASS_RATIO_
↪2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_IN_MEV_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_PROTON_MASS_RATIO_
↪2014;
ADD_IMPORT extern const struct codata_constant_type ANGSTROM_STAR_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_

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→EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
→EQUIVALENT_IN_MEV_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_ELECTRON_VOLT_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HARTREE_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_INVERSE_METER_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KILOGRAM_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_1ST_
→HYPERPOLARIZABILITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_2ND_
→HYPERPOLARIZABILITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ACTION_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_DENSITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CURRENT_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_DIPOLE_MOM_
→2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_FIELD_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_FIELD_
→GRADIENT_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_
→POLARIZABILITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_POTENTIAL_
→2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ELECTRIC_QUADRUPOLE_
→MOM_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF ENERGY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF FORCE_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF LENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF MAG_DIPOLE_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF MAG_FLUX_DENSITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF MAGNETIZABILITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF MASS_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF MOMUM_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF PERMITTIVITY_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF TIME_2014;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF VELOCITY_2014;
ADD_IMPORT extern const struct codata_constant_type AVOGADRO_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_EV_T_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_HZ_T_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_INVERSE_METERS_PER_

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→ TESLA_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_K_T_2014;
ADD_IMPORT extern const struct codata_constant_type BOHR_RADIUS_2014;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_EV_K_2014;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_HZ_K_2014;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_INVERSE_METERS_
→ PER_KELVIN_2014;
ADD_IMPORT extern const struct codata_constant_type CHARACTERISTIC_IMPEDANCE_OF_VACUUM_
→ 2014;
ADD_IMPORT extern const struct codata_constant_type CLASSICAL_ELECTRON_RADIUS_2014;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH_OVER_2_PI_2014;
ADD_IMPORT extern const struct codata_constant_type CONDUCTANCE_QUANTUM_2014;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_JOSEPHSON_
→ CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VON_KLITZING_
→ CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type CU_X_UNIT_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_BOHR_MAGNETON_
→ RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→ RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_IN_
→ MEV_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_NEUTRON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RMS_CHARGE_RADIUS_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRIC_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_CHARGE_TO_MASS_QUOTIENT_
→ 2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_OVER_2_PI_
→ 2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_HELION_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_ANOMALY_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_BOHR_MAGNETON_
→ RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_

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→RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_IN_
→MEV_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TAU_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_ALPHA_PARTICLE_MASS_
→RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_HELIUM_MAG_MOM_
→RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_PROTON_MAG_MOM_
→RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TRITON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_ATOMIC_MASS_UNIT_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HARTREE_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HERTZ_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_INVERSE_METER_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_JOULE_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KELVIN_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KILOGRAM_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_2014;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_OVER_H_2014;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT_FOR_CONVENTIONAL_
→ELECTRIC_CURRENT_2014;
ADD_IMPORT extern const struct codata_constant_type FERMI_COUPLING_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type FINE_STRUCTURE_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_FOR_
→SPECTRAL_RADIANCE_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ATOMIC_MASS_UNIT_
→RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ELECTRON_VOLT_RELATIONSHIP_
→2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_IN_EV_2014;

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ADD_IMPORT extern const struct codata_constant_type HARTREE_HERTZ_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_INVERSE_METER_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_JOULE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KELVIN_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KILOGRAM_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type HELION_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ELECTRON_VOLT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_HARTREE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_INVERSE_METER_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_JOULE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KELVIN_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KILOGRAM_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_FINE_STRUCTURE_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ATOMIC_MASS_UNIT_
↪RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ELECTRON_VOLT_
↪RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HARTREE_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HERTZ_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_JOULE_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KELVIN_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KILOGRAM_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type INVERSE_OF_CONDUCTANCE_QUANTUM_2014;
ADD_IMPORT extern const struct codata_constant_type JOSEPHSON_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_ELECTRON_VOLT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_HARTREE_RELATIONSHIP_2014;

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ADD_IMPORT extern const struct codata_constant_type JOULE_HERTZ_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_INVERSE_METER_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_KELVIN_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type JOULE_KILOGRAM_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ELECTRON_VOLT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HARTREE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HERTZ_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_INVERSE_METER_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_JOULE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KELVIN_KILOGRAM_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ATOMIC_MASS_UNIT_
↪RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ELECTRON_VOLT_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HARTREE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HERTZ_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_INVERSE_METER_RELATIONSHIP_
↪2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_JOULE_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_KELVIN_RELATIONSHIP_2014;
ADD_IMPORT extern const struct codata_constant_type LATTICE_PARAMETER_OF_SILICON_2014;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_100_KPA_
↪2014;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_101_325_
↪KPA_2014;
ADD_IMPORT extern const struct codata_constant_type MAG_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type MAG_FLUX_QUANTUM_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_GAS_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_OF_CARBON_12_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT_TIMES_C_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪100_KPA_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪101_325_KPA_2014;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_SILICON_2014;
ADD_IMPORT extern const struct codata_constant_type MO_X_UNIT_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH_OVER_2_PI_
↪2014;
ADD_IMPORT extern const struct codata_constant_type MUON_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_ANOMALY_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_BOHR_MAGNETON_RATIO_
↪2014;

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ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_NUCLEAR_MAGNETON_
    ↵RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_IN_MEV_
    ↵2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_NEUTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type MUON_TAU_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_IN_EV_S_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_IN_MEV_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_LENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMUM_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMUM_IN_MEV_C_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_TIME_2014;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_VELOCITY_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH_OVER_2_PI_
    ↵2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_OVER_2_PI_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_BOHR_MAGNETON_
    ↵RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
    ↵RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_IN_
    ↵MEV_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MUON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
    ↵ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
    ↵ENERGY_EQUIVALENT_IN_MEV_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_IN_U_
    ↵2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TAU_MASS_RATIO_2014;

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ADD_IMPORT extern const struct codata_constant_type NEUTRON_TO_SHIELDED_PROTON_MAG_MOM_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪2014;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪OVER_H_BAR_C_2014;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_2014;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_EV_T_2014;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_INVERSE_METERS_
↪PER_TESLA_2014;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_K_T_2014;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_MHZ_T_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_IN_EV_S_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_IN_EV_S_
↪2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_OVER_2_PI_TIMES_C_IN_
↪MEV_FM_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_LENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV_
↪2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TEMPERATURE_2014;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TIME_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_CHARGE_TO_MASS_QUOTIENT_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH_OVER_2_PI_
↪2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_OVER_2_PI_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_SHIELDING_CORRECTION_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_MUON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_RMS_CHARGE_RADIUS_2014;
ADD_IMPORT extern const struct codata_constant_type PROTON_TAU_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_2014;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_TIMES_2_2014;

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ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_C_IN_HZ_2014;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_EV_2014;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_J_2014;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_100_KPA_
↪2014;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_101_325_
↪KPA_2014;
ADD_IMPORT extern const struct codata_constant_type SECOND_RADIATION_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_GYROMAG_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_GYROMAG_RATIO_OVER_2_
↪PI_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_MAG_MOM_TO_BOHR_
↪MAGNETON_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_MAG_MOM_TO_NUCLEAR_
↪MAGNETON_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_TO_PROTON_MAG_MOM_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIUM_TO_SHIELDED_PROTON_
↪MAG_MOM_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_OVER_2_
↪PI_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_BOHR_
↪MAGNETON_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_NUCLEAR_
↪MAGNETON_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type SPEED_OF_LIGHT_IN_VACUUM_2014;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ACCELERATION_OF_GRAVITY_
↪2014;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ATMOSPHERE_2014;
ADD_IMPORT extern const struct codata_constant_type STANDARD_STATE_PRESSURE_2014;
ADD_IMPORT extern const struct codata_constant_type STEFAN_BOLTZMANN_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH_OVER_2_PI_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT_IN_MEV_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_MUON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_NEUTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TAU_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type THOMSON_CROSS_SECTION_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_ELECTRON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_G_FACTOR_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_2014;

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ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_IN_U_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_MOLAR_MASS_2014;
ADD_IMPORT extern const struct codata_constant_type TRITON_PROTON_MASS_RATIO_2014;
ADD_IMPORT extern const struct codata_constant_type UNIFIED_ATOMIC_MASS_UNIT_2014;
ADD_IMPORT extern const struct codata_constant_type VON_KLITZING_CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type WEAK_MIXING_ANGLE_2014;
ADD_IMPORT extern const struct codata_constant_type WIEN_FREQUENCY_DISPLACEMENT_LAW_
↪CONSTANT_2014;
ADD_IMPORT extern const struct codata_constant_type WIEN_WAVELENGTH_DISPLACEMENT_LAW_
↪CONSTANT_2014;

ADD_IMPORT extern const int YEAR_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_ELECTRON_MASS_RATIO_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
↪EQUIVALENT_IN_MEV_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_PROTON_MASS_RATIO_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_RELATIVE_ATOMIC_MASS_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ANGSTROM_STAR_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
↪EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
↪EQUIVALENT_IN_MEV_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_ELECTRON_VOLT_
↪RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HARTREE_
↪RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_INVERSE_METER_
↪RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KILOGRAM_

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→RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_1ST_
→HYPERPOLARIZABILITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_2ND_
→HYPERPOLARIZABILITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ACTION_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_DENSITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CURRENT_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_DIPOLE_MOM_
→2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_FIELD_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_FIELD_
→GRADIENT_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_
→POLARIZABILITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_POTENTIAL_
→2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_QUADRUPOLE_
→MOM_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ENERGY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_FORCE_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_LENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_DIPOLE_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_FLUX_DENSITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAGNETIZABILITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MOMENTUM_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_PERMITTIVITY_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_TIME_2018;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_VELOCITY_2018;
ADD_IMPORT extern const struct codata_constant_type AVOGADRO_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_EV_T_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_HZ_T_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_INVERSE_METER_PER_
→TESLA_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_K_T_2018;
ADD_IMPORT extern const struct codata_constant_type BOHR_RADIUS_2018;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_EV_K_2018;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_HZ_K_2018;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_INVERSE_METER_
→PER_KELVIN_2018;
ADD_IMPORT extern const struct codata_constant_type CHARACTERISTIC_IMPEDANCE_OF_VACUUM_
→2018;
ADD_IMPORT extern const struct codata_constant_type CLASSICAL_ELECTRON_RADIUS_2018;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type CONDUCTANCE_QUANTUM_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_AMPERE_90_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_COULOMB_90_
→2018;

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ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_FARAD_90_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_HENRY_90_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_JOSEPHSON_
↪CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_OHM_90_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VOLT_90_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VON_KLITZING_
↪CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_WATT_90_2018;
ADD_IMPORT extern const struct codata_constant_type COPPER_X_UNIT_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_IN_
↪MEV_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_NEUTRON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RMS_CHARGE_RADIUS_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_CHARGE_TO_MASS_QUOTIENT_
↪2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_IN_MHZ_T_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_HELION_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_ANOMALY_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_IN_
↪MEV_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MAG_MOM_RATIO_2018;

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ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TAU_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_ALPHA_PARTICLE_MASS_
    ↵RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_HELIUM_MAG_MOM_
    ↵RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_PROTON_MAG_MOM_
    ↵RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TRITON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_ATOMIC_MASS_UNIT_
    ↵RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HARTREE_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HERTZ_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_INVERSE_METER_
    ↵RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_JOULE_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KELVIN_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KILOGRAM_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_2018;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_OVER_H_BAR_2018;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type FERMI_COUPLING_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type FINE_STRUCTURE_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_FOR_
    ↵SPECTRAL_RADIANCE_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ATOMIC_MASS_UNIT_
    ↵RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ELECTRON_VOLT_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_IN_EV_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_HERTZ_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_INVERSE_METER_RELATIONSHIP_
    ↵2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_JOULE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KELVIN_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KILOGRAM_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HELIUM_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type HELIUM_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type HELIUM_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type HELIUM_MAG_MOM_TO_BOHR_MAGNETON_
    ↵RATIO_2018;

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ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type HELION_SHIELDING_SHIFT_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ELECTRON_VOLT_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_HARTREE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_INVERSE_METER_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_JOULE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KELVIN_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KILOGRAM_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type HYPERFINE_TRANSITION_FREQUENCY_OF_CS_
↪_133_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_FINE_STRUCTURE_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ATOMIC_MASS_UNIT_
↪_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ELECTRON_VOLT_
↪_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HARTREE_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HERTZ_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_JOULE_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KELVIN_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KILOGRAM_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type INVERSE_OF_CONDUCTANCE_QUANTUM_2018;
ADD_IMPORT extern const struct codata_constant_type JOSEPHSON_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_ELECTRON_VOLT_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_HARTREE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_HERTZ_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_INVERSE_METER_RELATIONSHIP_
↪_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_KELVIN_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type JOULE_KILOGRAM_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP_
↪_2018;

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ADD_IMPORT extern const struct codata_constant_type KELVIN_ELECTRON_VOLT_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HARTREE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HERTZ_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_INVERSE_METER_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_JOULE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KELVIN_KILOGRAM_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ATOMIC_MASS_UNIT_
↪RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ELECTRON_VOLT_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HARTREE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HERTZ_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_INVERSE_METER_RELATIONSHIP_
↪2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_JOULE_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_KELVIN_RELATIONSHIP_2018;
ADD_IMPORT extern const struct codata_constant_type LATTICE_PARAMETER_OF_SILICON_2018;
ADD_IMPORT extern const struct codata_constant_type LATTICE_SPACING_OF_IDEAL_SI_220_2018;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_100_KPA_
↪2018;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_101_325_
↪KPA_2018;
ADD_IMPORT extern const struct codata_constant_type LUMINOUS_EFFICACY_2018;
ADD_IMPORT extern const struct codata_constant_type MAG_FLUX_QUANTUM_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_GAS_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_OF_CARBON_12_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪100_KPA_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪101_325_KPA_2018;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_SILICON_2018;
ADD_IMPORT extern const struct codata_constant_type MOLYBDENUM_X_UNIT_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_ANOMALY_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_BOHR_MAGNETON_RATIO_
↪2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_IN_MEV_
↪2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_NEUTRON_MASS_RATIO_2018;

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ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type MUON_TAU_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_IN_EV_S_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_IN_MEV_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_LENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMENTUM_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMENTUM_IN_MEV_C_
↪2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_TIME_2018;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_VELOCITY_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_IN_MHZ_T_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_IN_
↪MEV_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MUON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
↪ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
↪ENERGY_EQUIVALENT_IN_MEV_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_IN_U_
↪2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TAU_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TO_SHIELDED_PROTON_MAG_MOM_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪2018;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
↪OVER_H_BAR_C_2018;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_2018;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_EV_T_2018;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_INVERSE_METER_

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→PER_TESLA_2018;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_K_T_2018;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_MHZ_T_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_IN_EV_HZ_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_LENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV_
→2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TEMPERATURE_2018;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TIME_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_CHARGE_TO_MASS_QUOTIENT_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_IN_MHZ_T_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_BOHR_MAGNETON_
→RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_SHIELDING_CORRECTION_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV_
→2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_MUON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_RMS_CHARGE_RADIUS_2018;
ADD_IMPORT extern const struct codata_constant_type PROTON_TAU_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_2018;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_TIMES_2_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_MUON_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_NEUTRON_COMPTON_WAVELENGTH_
→2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT_IN_EV_S_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT_TIMES_C_IN_
→MEV_FM_2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PROTON_COMPTON_WAVELENGTH_
→2018;
ADD_IMPORT extern const struct codata_constant_type REDUCED_TAU_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_C_IN_HZ_2018;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_EV_2018;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_J_2018;

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ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_100_KPA_
↪2018;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_101_325_
↪KPA_2018;
ADD_IMPORT extern const struct codata_constant_type SECOND_RADIATION_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO_IN_MHZ_
↪T_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM_TO_BOHR_
↪MAGNETON_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM_TO_NUCLEAR_
↪MAGNETON_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_TO_PROTON_MAG_MOM_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_TO_SHIELDED_PROTON_
↪MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_IN_MHZ_
↪T_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_BOHR_
↪MAGNETON_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_NUCLEAR_
↪MAGNETON_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDING_DIFFERENCE_OF_D_AND_P_IN_
↪HD_2018;
ADD_IMPORT extern const struct codata_constant_type SHIELDING_DIFFERENCE_OF_T_AND_P_IN_
↪HT_2018;
ADD_IMPORT extern const struct codata_constant_type SPEED_OF_LIGHT_IN_VACUUM_2018;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ACCELERATION_OF_GRAVITY_
↪2018;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ATMOSPHERE_2018;
ADD_IMPORT extern const struct codata_constant_type STANDARD_STATE_PRESSURE_2018;
ADD_IMPORT extern const struct codata_constant_type STEFAN_BOLTZMANN_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_MUON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_NEUTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TAU_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type THOMSON_CROSS_SECTION_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_ELECTRON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_G_FACTOR_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_BOHR_MAGNETON_
↪RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_NUCLEAR_MAGNETON_

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→RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV_
→2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_IN_U_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_MOLAR_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_PROTON_MASS_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_RELATIVE_ATOMIC_MASS_2018;
ADD_IMPORT extern const struct codata_constant_type TRITON_TO_PROTON_MAG_MOM_RATIO_2018;
ADD_IMPORT extern const struct codata_constant_type UNIFIED_ATOMIC_MASS_UNIT_2018;
ADD_IMPORT extern const struct codata_constant_type VACUUM_ELECTRIC_PERMITTIVITY_2018;
ADD_IMPORT extern const struct codata_constant_type VACUUM_MAG_PERMEABILITY_2018;
ADD_IMPORT extern const struct codata_constant_type VON_KLITZING_CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type WEAK_MIXING_ANGLE_2018;
ADD_IMPORT extern const struct codata_constant_type WIEN_FREQUENCY_DISPLACEMENT_LAW_
→CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type WIEN_WAVELENGTH_DISPLACEMENT_LAW_
→CONSTANT_2018;
ADD_IMPORT extern const struct codata_constant_type W_TO_Z_MASS_RATIO_2018;

ADD_IMPORT extern const int YEAR;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
→EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_ENERGY_
→EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type ALPHA_PARTICLE_RMS_CHARGE_RADIUS;
ADD_IMPORT extern const struct codata_constant_type ANGSTROM_STAR;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
→EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_CONSTANT_ENERGY_
→EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_ELECTRON_VOLT_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HARTREE_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_INVERSE_METER_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_MASS_UNIT_KILOGRAM_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_1ST_
→HYPERPOLARIZABILITY;

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ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_2ND_
    ↵HYPERPOLARIZABILITY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ACTION;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CHARGE_DENSITY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_CURRENT;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_DIPOLE_MOM;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_FIELD;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_FIELD_
    ↵GRADIENT;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_
    ↵Polarizability;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_POTENTIAL;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ELECTRIC_QUADRUPOLE_
    ↵MOM;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_ENERGY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_FORCE;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_LENGTH;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_DIPOLE_MOM;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAG_FLUX_DENSITY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MAGNETIZABILITY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MASS;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_MOMENTUM;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_PERMITTIVITY;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_TIME;
ADD_IMPORT extern const struct codata_constant_type ATOMIC_UNIT_OF_VELOCITY;
ADD_IMPORT extern const struct codata_constant_type AVOGADRO_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_EV_T;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_HZ_T;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_INVERSE_METER_PER_
    ↵TESLA;
ADD_IMPORT extern const struct codata_constant_type BOHR_MAGNETON_IN_K_T;
ADD_IMPORT extern const struct codata_constant_type BOHR_RADIUS;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_EV_K;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_HZ_K;
ADD_IMPORT extern const struct codata_constant_type BOLTZMANN_CONSTANT_IN_INVERSE_METER_
    ↵PER_KELVIN;
ADD_IMPORT extern const struct codata_constant_type CHARACTERISTIC_IMPEDANCE_OF_VACUUM;
ADD_IMPORT extern const struct codata_constant_type CLASSICAL_ELECTRON_RADIUS;
ADD_IMPORT extern const struct codata_constant_type COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type CONDUCTANCE_QUANTUM;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_AMPERE_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_COULOMB_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_FARAD_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_HENRY_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_JOSEPHSON_
    ↵CONSTANT;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_OHM_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VOLT_90;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_VON_KLITZING_

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CONSTANT;
ADD_IMPORT extern const struct codata_constant_type CONVENTIONAL_VALUE_OF_WATT_90;
ADD_IMPORT extern const struct codata_constant_type COPPER_X_UNIT;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_BOHR_MAGNETON_
RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MAG_MOM_TO_NUCLEAR_MAGNETON_
RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_ENERGY_EQUIVALENT_IN_
MEV;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_NEUTRON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type DEUTERON_RMS_CHARGE_RADIUS;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_CHARGE_TO_MASS_QUOTIENT;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_DEUTERON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_GYROMAG_RATIO_IN_MHZ_T;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_HELION_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_ANOMALY;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_BOHR_MAGNETON_
RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_ENERGY_EQUIVALENT_IN_
MEV;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_MUON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_NEUTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TAU_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_ALPHA_PARTICLE_MASS_
RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_HELION_MAG_MOM_

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→RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TO_SHIELDED_PROTON_MAG_MOM_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_TRITON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_ATOMIC_MASS_UNIT_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_INVERSE_METER_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELECTRON_VOLT_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE;
ADD_IMPORT extern const struct codata_constant_type ELEMENTARY_CHARGE_OVER_H_BAR;
ADD_IMPORT extern const struct codata_constant_type FARADAY_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type FERMI_COUPLING_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type FINE_STRUCTURE_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type FIRST_RADIATION_CONSTANT_FOR_
→SPECTRAL_RADIANCE;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ATOMIC_MASS_UNIT_
→RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ELECTRON_VOLT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY;
ADD_IMPORT extern const struct codata_constant_type HARTREE_ENERGY_IN_EV;
ADD_IMPORT extern const struct codata_constant_type HARTREE_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_INVERSE_METER_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HARTREE_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HELION_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type HELION_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_BOHR_MAGNETON_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type HELION_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_ENERGY_EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type HELION_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type HELION_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type HELION_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type HELION_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type HELION_SHIELDING_SHIFT;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HERTZ_ELECTRON_VOLT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HERTZ_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HERTZ_INVERSE_METER_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HERTZ_JOULE_RELATIONSHIP;

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ADD_IMPORT extern const struct codata_constant_type HERTZ_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HERTZ_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type HYPERFINE_TRANSITION_FREQUENCY_OF_CS_
↪133;
ADD_IMPORT extern const struct codata_constant_type INVERSE_FINE_STRUCTURE_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ATOMIC_MASS_UNIT_
↪RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_ELECTRON_VOLT_
↪RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_METER_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type INVERSE_OF_CONDUCTANCE_QUANTUM;
ADD_IMPORT extern const struct codata_constant_type JOSEPHSON_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_ELECTRON_VOLT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_INVERSE_METER_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type JOULE_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_ELECTRON_VOLT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_INVERSE_METER_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KELVIN_KILOGRAM_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ATOMIC_MASS_UNIT_
↪RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_ELECTRON_VOLT_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HARTREE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_HERTZ_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_INVERSE_METER_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_JOULE_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type KILOGRAM_KELVIN_RELATIONSHIP;
ADD_IMPORT extern const struct codata_constant_type LATTICE_PARAMETER_OF_SILOCON;
ADD_IMPORT extern const struct codata_constant_type LATTICE_SPACING_OF_IDEAL_SI_220;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_100_KPA;
ADD_IMPORT extern const struct codata_constant_type LOSCHMIDT_CONSTANT_273_15_K_101_325_
↪KPA;
ADD_IMPORT extern const struct codata_constant_type LUMINOUS_EFFICACY;
ADD_IMPORT extern const struct codata_constant_type MAG_FLUX_QUANTUM;
ADD_IMPORT extern const struct codata_constant_type MOLAR_GAS_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type MOLAR_MASS_OF_CARBON_12;
ADD_IMPORT extern const struct codata_constant_type MOLAR_PLANCK_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_
↪100_KPA;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_IDEAL_GAS_273_15_K_

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→101_325_KPA;
ADD_IMPORT extern const struct codata_constant_type MOLAR_VOLUME_OF_SILICON;
ADD_IMPORT extern const struct codata_constant_type MOLYBDENUM_X_UNIT;
ADD_IMPORT extern const struct codata_constant_type MUON_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type MUON_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_ANOMALY;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_BOHR_MAGNETON_RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_ENERGY_EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type MUON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type MUON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type MUON_NEUTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type MUON_TAU_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ACTION_IN_EV_S;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_ENERGY_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_LENGTH;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MASS;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMENTUM;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_MOMENTUM_IN_MEV_C;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_TIME;
ADD_IMPORT extern const struct codata_constant_type NATURAL_UNIT_OF_VELOCITY;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_GYROMAG_RATIO_IN_MHZ_T;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_BOHR_MAGNETON_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MAG_MOM_TO_NUCLEAR_MAGNETON_
→RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_ENERGY_EQUIVALENT_IN_
→MEV;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_MUON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
→ENERGY_EQUIVALENT;

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ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_
    ↵ENERGY_EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_DIFFERENCE_IN_U;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TAU_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type NEUTRON_TO_SHIELDED_PROTON_MAG_MOM_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION;
ADD_IMPORT extern const struct codata_constant_type NEWTONIAN_CONSTANT_OF_GRAVITATION_
    ↵OVER_H_BAR_C;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_EV_T;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_INVERSE_METER_
    ↵PER_TESLA;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_K_T;
ADD_IMPORT extern const struct codata_constant_type NUCLEAR_MAGNETON_IN_MHZ_T;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type PLANCK_CONSTANT_IN_EV_HZ;
ADD_IMPORT extern const struct codata_constant_type PLANCK_LENGTH;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS;
ADD_IMPORT extern const struct codata_constant_type PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TEMPERATURE;
ADD_IMPORT extern const struct codata_constant_type PLANCK_TIME;
ADD_IMPORT extern const struct codata_constant_type PROTON_CHARGE_TO_MASS_QUOTIENT;
ADD_IMPORT extern const struct codata_constant_type PROTON_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type PROTON_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_GYROMAG_RATIO_IN_MHZ_T;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_BOHR_MAGNETON_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_MOM_TO_NUCLEAR_MAGNETON_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_MAG_SHIELDING_CORRECTION;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type PROTON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type PROTON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type PROTON_MUON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_NEUTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type PROTON_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type PROTON_RMS_CHARGE_RADIUS;
ADD_IMPORT extern const struct codata_constant_type PROTON_TAU_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION;
ADD_IMPORT extern const struct codata_constant_type QUANTUM_OF_CIRCULATION_TIMES_2;
ADD_IMPORT extern const struct codata_constant_type REDUCED_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type REDUCED_MUON_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type REDUCED_NEUTRON_COMPTON_WAVELENGTH;

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```

ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT_IN_EV_S;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PLANCK_CONSTANT_TIMES_C_IN_
    ↵MEV_FM;
ADD_IMPORT extern const struct codata_constant_type REDUCED_PROTON_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type REDUCED_TAU_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_C_IN_HZ;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_EV;
ADD_IMPORT extern const struct codata_constant_type RYDBERG_CONSTANT_TIMES_HC_IN_J;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_100_KPA;
ADD_IMPORT extern const struct codata_constant_type SACKUR_TETRODE_CONSTANT_1_K_101_325_
    ↵KPA;
ADD_IMPORT extern const struct codata_constant_type SECOND_RADIATION_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELIION_GYROMAG_RATIO_IN_MHZ_
    ↵T;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM_TO_BOHR_
    ↵MAGNETON_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_MAG_MOM_TO_NUCLEAR_
    ↵MAGNETON_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_TO_PROTON_MAG_MOM_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_HELION_TO_SHIELDED_PROTON_
    ↵MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_GYROMAG_RATIO_IN_MHZ_
    ↵T;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_BOHR_
    ↵MAGNETON_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDED_PROTON_MAG_MOM_TO_NUCLEAR_
    ↵MAGNETON_RATIO;
ADD_IMPORT extern const struct codata_constant_type SHIELDING_DIFFERENCE_OF_D_AND_P_IN_
    ↵HD;
ADD_IMPORT extern const struct codata_constant_type SHIELDING_DIFFERENCE_OF_T_AND_P_IN_
    ↵HT;
ADD_IMPORT extern const struct codata_constant_type SPEED_OF_LIGHT_IN_VACUUM;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ACCELERATION_OF_GRAVITY;
ADD_IMPORT extern const struct codata_constant_type STANDARD_ATMOSPHERE;
ADD_IMPORT extern const struct codata_constant_type STANDARD_STATE_PRESSURE;
ADD_IMPORT extern const struct codata_constant_type STEFAN_BOLTZMANN_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type TAU_COMPTON_WAVELENGTH;
ADD_IMPORT extern const struct codata_constant_type TAU_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type TAU_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type TAU_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type TAU_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type TAU_MUON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type TAU_NEUTRON_MASS_RATIO;

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```

ADD_IMPORT extern const struct codata_constant_type TAU_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type THOMSON_CROSS_SECTION;
ADD_IMPORT extern const struct codata_constant_type TRITON_ELECTRON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type TRITON_G_FACTOR;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_BOHR_MAGNETON_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type TRITON_MAG_MOM_TO_NUCLEAR_MAGNETON_
    ↵RATIO;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV;
ADD_IMPORT extern const struct codata_constant_type TRITON_MASS_IN_U;
ADD_IMPORT extern const struct codata_constant_type TRITON_MOLAR_MASS;
ADD_IMPORT extern const struct codata_constant_type TRITON_PROTON_MASS_RATIO;
ADD_IMPORT extern const struct codata_constant_type TRITON_RELATIVE_ATOMIC_MASS;
ADD_IMPORT extern const struct codata_constant_type TRITON_TO_PROTON_MAG_MOM_RATIO;
ADD_IMPORT extern const struct codata_constant_type UNIFIED_ATOMIC_MASS_UNIT;
ADD_IMPORT extern const struct codata_constant_type VACUUM_ELECTRIC_PERMITTIVITY;
ADD_IMPORT extern const struct codata_constant_type VACUUM_MAG_PERMEABILITY;
ADD_IMPORT extern const struct codata_constant_type VON_KLITZING_CONSTANT;
ADD_IMPORT extern const struct codata_constant_type WEAK_MIXING_ANGLE;
ADD_IMPORT extern const struct codata_constant_type WIEN_FREQUENCY_DISPLACEMENT_LAW_
    ↵CONSTANT;
ADD_IMPORT extern const struct codata_constant_type WIEN_WAVELENGTH_DISPLACEMENT_LAW_
    ↵CONSTANT;
ADD_IMPORT extern const struct codata_constant_type W_TO_Z_MASS_RATIO;

#endif

```

2.3 Python

Codata constants.

The latest values (2022) do not have the year as a suffix in their name. Older values can be used and they feature the year as a suffix in their name.

The latest values are available at the top level and older values are available in dedicated modules.

Modern Fortran

CODATA

Fundamental physical constants for Modern Fortran according to CODATA.

The latest codata constants were released in 2022 by the [NIST](#). All values for the codata constants are provided as double precision reals in a derived type `codata_constant_type`. The names are quite long and can be aliased with shorter names. A module level interface `to_real` is available for getting the constant value or uncertainty of a constant.

BIBLIOGRAPHY

- [1] Peter J Mohr, Barry N Taylor, and David B. Newell. CODATA recommended values of the fundamental physical constants: 2010. *Review of Modern Physics*, 2012.
- [2] Peter J Mohr, Barry N Taylor, and David B. Newell. CODATA recommended values of the fundamental physical constants: 2014. *Journal of Physical and Chemical Reference Data*, 2016.
- [3] Peter J Mohr, Barry N Taylor, and David B. Newell. CODATA recommended values of the fundamental physical constants: 2018. *Review of Modern Physics*, 2021.
- [4] Peter Mohr, David Newell, Barry Taylor, and Eite Tiesinga. CODATA Recommended Values of the Fundamental Physical Constants: 2022. URL: <https://arxiv.org/abs/2409.03787> (visited on 2025-05-05), doi:10.48550/ARXIV.2409.03787.
- [5] Peter J. Mohr, David B. Newell, Barry N. Taylor, and Eite Tiesinga. CODATA recommended values of the fundamental physical constants: 2022. *Reviews of Modern Physics*, 97(2):025002, 2025. URL: <https://link.aps.org/doi/10.1103/RevModPhys.97.025002> (visited on 2025-05-05), doi:10.1103/RevModPhys.97.025002.

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