Circular Economy Ontology Network (CEON) - Material Module

Metadata

IRI

`http://w3id.org/CEON/ontology/material/`

Title

Circular Economy Ontology Network (CEON) - Material Module

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Version Iri

http://w3id.org/CEON/ontology/material/0.1/

Version Info

0.1

Preferred Namespace Prefix

material

Preferred Namespace Uri

http://w3id.org/CEON/ontology/material/

Description

The Material module of CEON (Circular Economy Ontology Network).

Covers Requirements

In addition to requirements covered by imported ODPs, covers the following requirements from Onto-DESIDE D3.1: CVN-Resource-2, CVN-ResourceType-4, C3-3, E1-3, E2-4, E5-2, T1-1, T10-2.

Classes

Chemical entity [C]

IRI	`http://w3id.org/CEON/ontology/material/ChemicalEntity`
Description	A chemical entity is an abstraction of entities that can compose matter. For instance, a chemical entity can be a molecular entity or a chemical substance.
Sub Class Of	resourceODP:Matter [C]
In Range Of	has chemical entity [op]
Super Class Of	Chemical substance [C] Molecular entity [C]

Chemical substance [C]

IRI	http://w3id.org/CEON/ontology/material/ChemicalSubstance
Description	A chemical substance is made up of a collection of molecular entities.
Sub Class Of	Chemical entity [C]

Material [C]

IRI	http://w3id.org/CEON/ontology/material/Material
Description	Material as a sub-concept of Matter, can be a substance or a collection of substance which a physical object is composed of.
Sub Class Of	resourceODP:Matter [C]
In Domain Of	has chemical entity [op] has material component [op]
Restriction	has chemical entity [op] some Material [C]

Material component [C]

IRI	http://w3id.org/CEON/ontology/material/MaterialComponent
Description	A material component is a part of a material.
Sub Class Of	resourceODP:Constituent [C]
In Range Of	has material component [op]

Molecular entity [C]

IRI	http://w3id.org/CEON/ontology/material/MolecularEntity
Description	A molecular entity means a singular/distinguishable entity. It can be for instance, atom, ion.
Sub Class Of	Chemical entity [C]

Constituent [C]

IRI	http://w3id.org/CEON/ontology/resourceODP/Constituent
Super Class Of	Material component [C]

Matter ^c

IRI	`http://w3id.org/CEON/ontology/resourceODP/Matter`
Super Class Of	Chemical entity ^c Material ^c

Object Properties

has chemical entity ^{op}

IRI	`http://w3id.org/CEON/ontology/material/hasChemicalEntity`
Description	hasChemicalEntity intends to represent that a material can have a collection of chemical entities.
Domain	Material ^c
Range	Chemical entity ^c

has material component ^{op}

IRI	`http://w3id.org/CEON/ontology/material/hasMaterialComponent`
Description	hasMaterialComponent intends to represent that a material can have a collection of components.
Domain	Material ^c
Range	Material component ^c

Datatype Properties

Anonymous Formula ^{dp}

IRI	`http://w3id.org/CEON/ontology/material/AnonymousFormula`
Description	AnonymousFormula represents that a molecular entity has the anonymous formula in a string.

Descriptive Formula ^{dp}

IRI	`http://w3id.org/CEON/ontology/material/DescriptiveFormula`
Description	DescriptiveFormula represents that a molecular entity has the descriptive formula in a string.

Hill Formula ^{dp}

IRI	`http://w3id.org/CEON/ontology/material/HillFormula`
Description	HillFormula represents that a composition has the hill formula in a string.

Reduced Chemical Formula ^{dp}

IRI	`http://w3id.org/CEON/ontology/material/ReducedChemicalFormula`
Description	ReducedChemicalFormula represents that a molecular entity has the reduced chemical formula in a string.

Annotation Properties

description ^{ap}

IRI	`http://purl.org/dc/elements/1.1/description`

Namespaces

:

`http://w3id.org/CEON/ontology/material/`

dc

`http://purl.org/dc/elements/1.1/`

dcterms

`http://purl.org/dc/terms/`

odp

`http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#`

owl

`http://www.w3.org/2002/07/owl#`

prov

`http://www.w3.org/ns/prov#`

rdf

`http://www.w3.org/1999/02/22-rdf-syntax-ns#`

rdfs

`http://www.w3.org/2000/01/rdf-schema#`

resourceODP

`http://w3id.org/CEON/ontology/resourceODP/`

vann

`http://purl.org/vocab/vann/`

Legend

c	Classes
op	Object Properties
dp	Datatype Properties
ap	Annotation Properties