

Using the test_data.pkl object

```
from pprint import pprint # used to make print statements more readable

# Retrieve the dictionary from the pickle file
input = open('test_data.pkl', 'rb') # select file to (r)ead from
data = pickle.load(input)           # loads the file as a python dictionary, assigned to data
pprint(data)
```

The data output

```
[OrderedDict([('title',
               'Conservation status of the American horseshoe crab, (Limulus '
               'polyphemus): a regional assessment'),
 ('abstract',
  'AbstractHorseshoe crabs have persisted for more than 200 '
  'million years, and fossil forms date to 450 million years ago. '
  'The American horseshoe crab (Limulus polyphemus), one of four '
  'extant horseshoe c'),
 ('publicationDate', '2017-03-01'),
 ('url', 'http://dx.doi.org/10.1007/s11160-016-9461-y'),
 ('issn', '1573-5184')]),
 OrderedDict([('title',
               'Taxonomic examination of longgu (Fossilia Ossis Mastodi, '
               '"dragon bone") and a related crude drug, longchi (Dens '
               'Draconis, "dragon tooth"), from Japanese and Chinese crude '
               'drug markets'),
 ('abstract',
  'AbstractLonggu ("dragon bone," Ryu-kotsu, Fossilia Ossis '
  'Mastodi, or Os Draconis) is the only fossil crude drug listed '
  'in the Japanese Pharmacopoeia. All longgu in the current '
  'Japanese market is impor'),
 ('publicationDate', '2017-02-20'),
 ('url', 'http://dx.doi.org/10.1007/s11418-016-1062-5'),
 ('issn', '1861-0293')]),
 OrderedDict([('title',
               'Agri-food-energy system metabolism: a historical study for '
               'northern France, from nineteenth to twenty-first centuries'),
 ('abstract',
  'AbstractWe reconstruct the metabolism of cereal grain '
  'production and processing systems in the Seine river basin at '
  'four time points between 1860 and 2010 in terms of nitrogen '
  'and energy flows, on the'),
 ('publicationDate', '2017-02-15'),
 ('url', 'http://dx.doi.org/10.1007/s10113-017-1119-3'),
 ('issn', '1436-378X')]),
 OrderedDict([('title',
               'Erosion of insect diversity in response to 7000\years of '
               'relative sea-level rise on a small Mediterranean island'),
 ('abstract',
  'AbstractWe have investigated the potential effects of global '
  'sea-level rise on Mediterranean coastal wetlands by studying '])]
```

```

        'the Coleoptera and pollen fossil remains in a 7000-year '
        'sedimentary record, wh'),
('publicationDate', '2017-02-15'),
('url', 'http://dx.doi.org/10.1007/s10531-017-1322-z'),
('issn', '1572-9710')]],
OrderedDict([('title',
'Evidence for diversification of Calophyllum L. '
'(Calophyllaceae) in the Neogene Siwalik forests of eastern '
'Himalaya'),
('abstract',
'AbstractHere, we report fossil leaves, woods, and pollen '
'grains comparable to Calophyllum L. (mainly to Calophyllum '
'inophyllum L. and Calophyllum polyanthum Wall. ex Choisy) of '
'Calophyllaceae from the'),
('publicationDate', '2017-02-13'),
('url', 'http://dx.doi.org/10.1007/s00606-016-1376-5'),
('issn', '1615-6110')]],
OrderedDict([('title',
'Characteristics and source apportionment of black carbon '
'aerosols over an urban site'),
('abstract',
'AbstractAethalometer based source apportionment model using '
'the measured aerosol absorption coefficients at different '
'wavelengths is used to apportion the contribution of fossil '
'fuel and wood burning '),
('publicationDate', '2017-02-10'),
('url', 'http://dx.doi.org/10.1007/s11356-017-8453-3'),
('issn', '1614-7499')]],
OrderedDict([('title',
'Future Directions in the Field of High-Temperature Corrosion '
'Research'),
('abstract',
'AbstractHigh-temperature corrosion research will face a '
'significant change in the near future. Up until now, this '
'research area was dominated by materials issues related to the '
'use of fossil fuels in '),
('publicationDate', '2017-02-03'),
('url', 'http://dx.doi.org/10.1007/s11085-017-9719-3'),
('issn', '1573-4889')]],
OrderedDict([('title',
'The Evolution of Angiosperm Trees: From Palaeobotany to '
'Genomics'),
('abstract',
'AbstractAngiosperm trees now rival the largest conifers in '
'height and many species reach over 80 m high. The large tree '
'life form, with extensive secondary xylem, originated with the '
'progymnosperms an'),
('publicationDate', '2017-02-03'),
('url', 'http://dx.doi.org/10.1007/7397_2016_31'),
('issn', '')]],
OrderedDict([('title', 'Detection capabilities: some historical footnotes'),
('abstract',
'AbstractPart I Summary of relevant topics from 1923 to '
'present-including: Currie (Anal Chem 40:586-593, 1968) '
'detection concepts & capabilities; International detection & '
'uncertainty standards; Failur'),
('publicationDate', '2017-02-01'),

```

```
OrderedDict([('url', 'http://dx.doi.org/10.1007/s10967-016-4925-z'),
('issn', '1588-2780')]),
('title',
'Well-to-wake analysis of ethanol-to-jet and sugar-to-jet '
'pathways'),
('abstract',
'AbstractBackgroundTo reduce the environmental impacts of the '
'aviation sector as air traffic grows steadily, the aviation '
'industry has paid increasing attention to bio-based '
'alternative jet fuels (AJFs'),
('publicationDate', '2017-01-24'),
('url', 'http://dx.doi.org/10.1186/s13068-017-0698-z'),
('issn', '1754-6834')])
```

...