# Supplement: Detecting Motifs in Knowledge Graphs using Compression

September 6, 2018

## The canonical isomorphism algorithm for patterns

During search, we want to re-order the nodes and links in an encountered pattern to some canonical ordering. This way, when we later return an isomorphic pattern, we recognize it, and will not need to compute its logfactor again. The *nauty* algorithm is the standard solution for findings such *canonical isomorphs*. As we are sampling partially labeled, directed graphs, we have a lot of information that can speed up canonicalization. Since this step is usually the bottleneck in sampling, it's important to perform it as efficiently as possible. Below, we provide a very succinct description of how nauty works, when applied to our patterns.

Let $V'_M$ and $R'_M$ represent the labels of the variable nodes and links in $M$. Pattern $M$ is an isomorphism of pattern $M'$ if there exist bijections $\sigma_v : V'_M \times V'M$ and $\sigma_r : \mathbb{R}'_M \times \mathbb{R}'_M$ such that applying these to the variable elements of $M$ yields $M'$ (under graph equivalence). The set of all patterns isomorphic to $G$ is the isomorphism class $[G]$. A function $C(P)$ is a canonicalization function if it produces for all any pattern $M$ in $[M]$ the same, canonical member of $M$.

Note that a very simple canonicalization algorithm would be to pass the unlabeled graph to the Nauty algorithm, and use its canonical ordering on the labeled graph. However, the labels can make the canonicalization procedure significantly faster.

The key principle behind the Nauty algorithm is the use of a *colouring*: a partition of the nodes of a graph. A *safe colouring* is defined as a partition $\pi$ of the nodes of the graph such that any permutation that maps nodes from different partitions to one another is guaranteed *not* to be an automorphism. No guarantees are made about nodes in the same cell. For instance, the partition that puts all nodes in the same cell is always safe. If two nodes have different degrees, we can put them in different cells and be sure that we have a safe colouring. Given one safe colouring $\pi$, if node $a$ from partition $i$ has a neighbor in partition $j$ and node $b$ from partition $j$ has no such node, we can *refine* the partition $\pi$ by separating $i$ into a new partition (one contain $a$ and one containing $b$).

The nauty algorithm operates on a graph with a given colouring (with the unit colouring used by default). It first refines the colouring as much as possible, using degree information, and propagating the distinguishing features through the graph. Once the most refined colouring has been achieved, it searches through all autorphisms of the

graph to produce a canonical example (using various optimizations to prune the search tree).

In our case, we use the colouring to indicate what our labeling tells us about the colouring of the nodes. Note the following:

1. Labeled nodes in the pattern can be placed in a discrete cell of the colouring.
2. Variable nodes should be placed into a single cell in the partition.
3. We define a partition over nodes *and* relation labels.

# Motifs found for the three datasets

## Dogfood, top 100 by log factor

| log factor | frequency | |
|---|---|---|
| 28232.1 | 5807 | `?n1 swc:heldBy ?n2.` |
| 5125.5 | 2538 | `?n1 rdf:type ?n2.` |
| 3997.0 | 2180 | `?n1 swc:isPartOf ?n2.` |
| 1755.1 | 566 | `?n1`<br>`http://www.w3.org/2002/12/cal/ical_tzid`<br>`?n2.` |
| 378.1 | 16651 | `?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n2.`<br>`?n2 rdf:_1 ?n3.` |
| 201.2 | 539 | `?n1 swc:hasRole ?n2.`<br>`?n2 rdf:type swc:Presenter.` |
| -2723.1 | 466 | `?n1 rdf:type swc:Presenter.` |
| -2994.2 | 2031 | `?n1 ?p3 ?n2.` |
| -3191.3 | 30 | `dsw:conference/eswc/2006/sessions/poster-session swc:hasRole ?n1.`<br>`?n1 rdf:type swc:Presenter.` |
| -3227.7 | 154 | `dsw:conference/iswc/2008/research/pcmember swc:heldBy ?n1.` |
| -3271.9 | 156 | `dsw:conference/iswc/2008/research/pcmember ?p2 ?n1.` |
| -3415.6 | 49 | `dsw:conference/dc/2010/programme-committee-member swc:heldBy ?n1.` |
| -3514.0 | 138 | `?n1 ?p2 dsw:person/eero-hyvoenen.` |
| -3596.0 | 29 | `dsw:conference/iswc/2008/in_use/pcmember swc:heldBy ?n1.` |
| -3605.8 | 33 | `?n1 ?p2 dsw:person/heiko-paulheim.` |
| -3608.1 | 31 | `dsw:conference/eswc/2012/poster-track-committee-member swc:heldBy ?n1.` |
| -3608.5 | 96 | `_:genid8 ?p2 ?n1.` |
| -3619.3 | 81 | `_:genid14 ?p2 ?n1.` |
| -3637.2 | 55 | `_:genid37 ?p2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -3638.1 | 60 | `_:genid17 ?p2 ?n1.` |
| -3642.2 | 36 | `dsw:conference/iswc/2010/dc/pcmember swc:heldBy ?n1.` |
| -3643.8 | 47 | `?n1 ?p2 dsw:person/kim-viljanen.` |
| -3644.5 | 46 | `?n1 ?p2 dsw:person/bernhard-schandl.` |
| -3656.0 | 1 | `dsw:conference/eswc/2010/paper/services/3/authorlist rdf:_1 dsw:person/heiko-paulheim.` |
| | | |
| -3658.5 | 1 | `_:genid12 rdf:_10 dsw:person/michael-pool.` |
| -3660.9 | 1 | `_:genid14 rdf:_1 dsw:person/siegfried-handschuh.` |
| -3660.9 | 19 | `?n1 ?p2 dsw:person/xi-bai.` |
| -3662.3 | 1 | dsw:person/doroteo-t-toledano foaf:name "Doroteo T. Toledano". |
| -3662.8 | 34 | `dsw:conference/eswc/2012/poster-track-committee-member ?p2 ?n1.` |
| -3662.9 | 1 | `dsw:person/doroteo-t-toledano rdfs:label "Doroteo T. Toledano".` |
| -3663.6 | 1 | `dsw:conference/www/2012/demo/demo-chair swc:heldBy dsw:person/bebo-white.` |
| -3664.9 | 1 | `_:genid17 rdf:_1 dsw:person/john-barton.` |
| -3665.5 | 1 | dsw:organization/czech-technical-university-in-prague foaf:member dsw:person/petr-pollak. |
| -3665.9 | 1 | `dsw:conference/iswc/2010/paper/431/authorlist rdf:_1 dsw:person/alexandre-passant.` |
| -3666.2 | 1 | `dsw:conference/isemantics/2009/paper/main/11 dc:creator dsw:person/violeta-damjanovic.` |
| | | |
| -3666.4 | 1 | `_:genid37 rdf:_2 dsw:person/stephen-larson.` |
| -3666.7 | 1 | `_:genid117 rdf:_1 dsw:person/tomas-vitvar.` |
| -3666.8 | 1 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember rdf:type swc:OrganisingCommitteeMen` |
| | | |
| -3666.8 | 1 | `dsw:conference/iswc/2010/paper/468/authorlist rdf:_1 dsw:person/jerome-euzenat.` |
| -3666.8 | 1 | `dsw:workshop/terra_cognita/2008/paper/main/4 dc:creator dsw:person/raluca-zaharia.` |
| -3666.8 | 1 | `dsw:workshop/terra_cognita/2008/paper/main/4 dc:creator dsw:person/laurentiu-vasiliu.` |
| -3667.2 | 1 | `dsw:conference/iswc/2008/paper/poster_demo/43 foaf:maker dsw:person/malte-kiesel.` |
| -3667.2 | 1 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember swc:heldBy dsw:person/achille-fokou` |

| log factor | frequency | |
|---|---|---|
| -3667.6 | 3 | `dsw:conference/lrec/2008/papers/421 ?p1 dsw:person/petr-pollak.` |
| -3667.6 | 1 | `dsw:conference/lrec/2008/papers/421 dc:creator dsw:person/petr-pollak.` |
| -3667.6 | 1 | `dsw:workshop/iwod/2008/main/chair/organisingcommitteemember rdf:type swc:OrganisingCommitteeMer` |
| -3667.7 | 1 | `dsw:conference/eswc/2012/poster-track-committee-member swc:heldBy dsw:person/tomas-vitvar.` |
| -3667.8 | 1 | `_:genid39 rdf:_1 dsw:person/tomas-vitvar.` |
| -3667.9 | 3 | `dsw:workshop/terra_cognita/2008/paper/main/4 ?p1 dsw:person/raluca-zaharia.` |
| -3667.9 | 3 | `dsw:workshop/terra_cognita/2008/paper/main/4 ?p1 dsw:person/laurentiu-vasiliu.` |
| -3668.0 | 1 | `dsw:workshop/swsc/2008/main/pcmember swc:heldBy dsw:person/tomas-vitvar.` |
| -3668.1 | 59 | `?n1 ?p2 dsw:person/achille-fokoue.` |
| -3668.3 | 1 | `_:genid38 rdf:_1 dsw:person/nicola-fanizzi.` |
| -3668.3 | 1 | `dsw:conference/lrec/2008/papers/301 swrs:author dsw:person/hiroyuki-shinnou.` |
| -3669.0 | 1 | `_:genid37 rdf:_2 dsw:person/hanmin-jung.` |
| -3670.3 | 1 | `dsw:conference/iswc/2008/research/pcmember swc:heldBy dsw:person/chiara-ghidini.` |
| -3670.6 | 13 | `?n1 rdf:type swc:OrganisingCommitteeMember.` |
| -3670.9 | 80 | `_:genid12 ?p2 ?n1.` |
| -3671.1 | 1 | `dsw:conference/iswc/2010/dc/pcmember swc:heldBy dsw:person/andreas-harth.` |
| -3671.2 | 18 | `_:genid17 rdf:_1 ?n1.` |
| -3673.4 | 3 | `dsw:conference/iswc/2008/paper/poster_demo/43 ?p1 dsw:person/malte-kiesel.` |
| -3673.7 | 13 | `?n1 ?p2 dsw:person/hiroyuki-shinnou.` |
| -3674.2 | 3 | `dsw:conference/lrec/2008/papers/301 ?p1 dsw:person/hiroyuki-shinnou.` |
| -3674.7 | 69 | `?n1 ?p2 dsw:person/andreas-harth.` |
| -3675.6 | 20 | `?n1 ?p2 dsw:person/jianfeng-du.` |
| -3676.1 | 1 | `dsw:person/akira-mori rdf:type foaf:Person.` |
| -3677.1 | 1 | `dsw:person/alberto-musetti rdf:type foaf:Person.` |
| -3677.9 | 1 | `dsw:person/alejandro-jaimes rdf:type foaf:Person.` |
| -3678.1 | 1 | `dsw:conference/eswc/2010/paper/services/3/authorlist ?p1 dsw:person/heiko-paulheim.` |

| log factor | frequency | |
|---|---|---|
| -3678.7 | 13 | `_:genid38 rdf:_1 ?n1.` |
| -3678.8 | 1 | `dsw:person/georg-lausen rdf:type foaf:Person.` |
| -3679.2 | 2 | `dsw:conference/isemantics/2009/paper/main/11 ?p1 dsw:person/violeta-damjanovic.` |
| -3679.5 | 10 | `_:genid8 rdf:_4 ?n1.` |
| -3679.7 | 10 | `_:genid59 rdf:_2 ?n1.` |
| -3680.2 | 2 | `dsw:person/doroteo-t-toledano ?p1 "Doroteo T. Toledano".` |
| -3680.3 | 13 | `_:genid39 rdf:_1 ?n1.` |
| -3680.5 | 1 | `_:genid12 ?p1 dsw:person/michael-pool.` |
| -3680.7 | 3 | `dsw:conference/iswc/2009/paper/research/347 ?p1 dsw:person/bernhard-schandl.` |
| -3682.2 | 33 | `_:genid38 ?p2 ?n1.` |
| -3682.9 | 1 | `_:genid14 ?p1 dsw:person/siegfried-handschuh.` |
| -3683.8 | 13 | `_:genid37 rdf:_2 ?n1.` |
| -3685.6 | 1 | `dsw:conference/www/2012/demo/demo-chair ?p1 dsw:person/bebo-white.` |
| -3685.7 | 1 | `_:genid150 ?p1 dsw:person/bettina-bauer-messmer.` |
| -3686.3 | 1 | `dsw:conference/iswc/2011/paper/semantic-web-in-use/60/authorlist ?p1 dsw:person/xi-bai.` |
| -3686.8 | 169 | `_:genid38 rdf:_1 ?n2.`<br>`?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid38.` |
| -3687.0 | 43 | `_:genid42 ?p2 ?n1.` |
| -3687.1 | 1 | `dsw:conference/eswc/2010/social_web/pcmember ?p1 dsw:person/eero-hyvoenen.` |
| -3687.2 | 3 | `dsw:conference/eswc/2008/paper/54 ?p1 dsw:person/eero-hyvoenen.` |
| -3687.5 | 1 | `dsw:organization/czech-technical-university-in-prague ?p1 dsw:person/petr-pollak.` |
| -3688.1 | 1 | `dsw:conference/rr/2008/full/4/authors ?p1 dsw:person/jianfeng-du.` |
| -3688.4 | 1 | `_:genid37 ?p1 dsw:person/stephen-larson.` |
| -3688.7 | 1 | `_:genid117 ?p1 dsw:person/tomas-vitvar.` |
| -3688.7 | 2 | `_:genid8 ?p1 dsw:person/irene-celino.` |
| -3688.8 | 1 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember ?p1 swc:OrganisingCommitteeMember.` |

| log factor | frequency | |
|---|---|---|
| -3688.8 | 1 | `dsw:conference/iswc/2010/paper/468/authorlist ?p1 dsw:person/jerome-euzenat.` |
| -3689.0 | 13 | `_:genid37 rdf:_1 ?n1.` |
| -3689.1 | 1 | `_:genid36 ?p1 dsw:person/benjamin-coe.` |
| -3689.2 | 2 | `dsw:conference/eswc/2011/paper/in-use/52 ?p1 dsw:person/eero-hyvoenen.` |
| -3689.3 | 1 | `dsw:conference/eswc/2006/demo-papers/FD01-hitzler ?p1 dsw:person/malte-kiesel.` |
| -3689.3 | 1 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember ?p1 dsw:person/achille-fokoue.` |
| -3689.7 | 1 | `dsw:conference/eswc/2012/poster-track-committee-member ?p1 dsw:person/tomas-vitvar.` |
| -3689.8 | 8 | `_:genid96 rdf:_1 ?n1.` |
| -3690.1 | 1 | `dsw:workshop/swsc/2008/main/pcmember ?p1 dsw:person/tomas-vitvar.` |
| -3690.3 | 1 | `_:genid38 ?p1 dsw:person/nicola-fanizzi.` |
| -3691.0 | 1 | `_:genid37 ?p1 dsw:person/hanmin-jung.` |
| -3692.3 | 3 | `?n1 swc:heldBy dsw:person/bebo-white.` |
| -3692.9 | 47 | `_:genid36 ?p2 ?n1.` |
| -3693.1 | 1 | `dsw:conference/iswc/2010/dc/pcmember ?p1 dsw:person/andreas-harth.` |
| -3694.6 | 1 | `?n1 rdf:_10 dsw:person/michael-pool.` |
| -3694.6 | 1 | `_:genid12 rdf:_10 ?n1.` |
| -3695.0 | 2 | `?n1 swc:heldBy dsw:person/marco-neumann.` |
| -3695.4 | 13 | `_:genid38 rdf:_1 ?n1.` |
| | | `dsw:conference/iswc/2008/paper/poster_demo/18 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:ge` |
| -3695.9 | 3 | `?n1 rdf:_1 dsw:person/hiroyuki-shinnou.` |
| -3696.4 | 39 | `_:genid39 ?p2 ?n1.` |
| -3696.7 | 6 | `dsw:conference/isemantics/2009/paper/main/45 foaf:maker ?n1.` |
| -3697.1 | 1 | `dsw:conference/www/2012/dev/16/talk swc:hasRole ?n1.` |
| | | `?n1 rdf:type swc:Presenter.` |
| -3697.1 | 2 | `dsw:person/doroteo-t-toledano foaf:made ?n1.` |
| -3697.6 | 1 | `?n1 rdf:_1 dsw:person/bruno-alves.` |

| log factor | frequency | |
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| -3698.0 | 1 | `dsw:conference/dc/2010/tutorial/2/tutorial-presenter rdf:type swc:Presenter.` |
| | | `?n1 swc:hasRole dsw:conference/dc/2010/tutorial/2/tutorial-presenter.` |
| -3698.1 | 1 | `dsw:person/akira-mori ?p1 foaf:Person.` |
| -3698.5 | 1 | `?n1 foaf:name "Doroteo T. Toledano".` |
| -3698.8 | 1 | `dsw:person/michalis-foukarakis ?p1 foaf:Person.` |
| -3699.0 | 1 | `?n1 rdfs:label "Doroteo T. Toledano".` |
| -3699.0 | 1 | `dsw:person/doroteo-t-toledano rdfs:label ?n1.` |
| -3699.2 | 1 | `dsw:person/alberto-musetti ?p1 foaf:Person.` |
| -3699.2 | 2 | `_:genid152 rdf:_1 ?n1.` |
| -3699.3 | 1 | `dsw:person/michalis-foukarakis foaf:name ?n1.` |
| -3699.7 | 1 | `dsw:conference/isemantics/2009/paper/main/11 rdfs:label ?n1.` |
| -3699.8 | 1 | `dsw:person/michalis-foukarakis rdfs:label ?n1.` |
| -3699.9 | 1 | `dsw:person/alejandro-jaimes ?p1 foaf:Person.` |
| -3699.9 | 1 | `dsw:conference/eswc/2012/paper/in-use-industrial/138/authorlist rdf:_1 ?n1.` |
| -3700.1 | 1 | `dsw:person/alain-leger ?p1 foaf:Person.` |
| -3700.2 | 4 | `_:genid117 rdf:_1 ?n1.` |
| -3700.4 | 1 | `?n1 rdf:_1 dsw:person/nikos-loutas.` |
| -3700.5 | 4 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember swc:heldBy ?n1.` |
| -3700.8 | 1 | `dsw:person/georg-lausen ?p1 foaf:Person.` |
| -3700.9 | 1 | `?n1 rdfs:label "Graph Kernels for RDF data".` |
| -3700.9 | 1 | `?n1 rdf:_1 dsw:person/petr-pollak.` |
| -3701.1 | 2 | `?n1 rdf:_1 dsw:person/aidan-boran.` |
| -3701.8 | 1 | `dsw:conference/dh/2010/abstracts/poster/ab-633 rdfs:label ?n1.` |
| -3702.1 | 1 | `dsw:conference/iswc/2010/paper/431/authorlist rdf:_1 ?n1.` |
| -3702.1 | 2 | `?n1 foaf:maker dsw:person/bettina-bauer-messmer.` |
| -3702.1 | 2 | `dsw:conference/www/2012/eu/10 swc:isPartOf ?n1.` |
| -3702.3 | 1 | `?n1 dc:creator dsw:person/violeta-damjanovic.` |
| -3702.3 | 1 | `dsw:conference/isemantics/2009/paper/main/11 dc:creator ?n1.` |

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| log factor | frequency | |
|---|---|---|
| -3702.5 | 37 | `?n1 ?p2 dsw:person/chiara-ghidini.` |
| -3702.5 | 1 | `?n1 rdf:_2 dsw:person/stephen-larson.` |
| -3702.8 | 2 | `?n1 rdf:_1 dsw:person/siegfried-handschuh.` |
| -3702.9 | 1 | `dsw:workshop/ssws/2008/main/chair/organisingcommitteemember rdf:type ?n1.` |
| -3702.9 | 1 | `dsw:conference/iswc/2010/paper/468/authorlist rdf:_1 ?n1.` |
| -3703.0 | 1 | `?n1 dc:creator dsw:person/raluca-zaharia.` |
| -3703.4 | 4 | `?n1 foaf:maker dsw:person/malte-kiesel.` |
| -3703.5 | 1 | `?n1 dc:creator dsw:person/naimul-basher.` |
| -3703.6 | 37 | `_:genid94 ?p2 ?n1.` |
| -3703.8 | 4 | `dsw:workshop/terra_cognita/2008/paper/main/4 dc:creator ?n1.` |
| -3704.0 | 1 | `?n1 dc:creator dsw:person/vinhtuan-thai.` |
| -3704.3 | 2 | `?n1 rdf:_1 dsw:person/jerome-euzenat.` |
| -3704.7 | 39 | `_:genid62 ?p2 ?n1.` |
| -3705.4 | 3 | `?n1 rdf:_1 dsw:person/tomas-vitvar.` |
| -3705.7 | 3 | `?n1 swc:heldBy dsw:person/tomas-vitvar.` |
| -3706.6 | 2 | `?n1 foaf:maker dsw:person/aidan-boran.` |
| -3706.9 | 3 | `?n1 swrs:author dsw:person/hiroyuki-shinnou.` |
| -3708.8 | 2 | `_:genid65 http://www.w3.org/2002/12/cal/ical_tzid ?n1.` |
| -3709.0 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-766/authors rdf:type ?n1.` |
| -3710.4 | 3 | `?n1 rdf:_1 dsw:person/achille-fokoue.` |
| -3710.8 | 2 | `?n1 swc:heldBy dsw:person/aidan-boran.` |
| -3711.7 | 6 | `?n1 ?p2 dsw:person/bruno-alves.` |
| -3714.2 | 1 | `dsw:conference/eswc/2010/paper/services/3/authorlist ?p2 ?n1.` |
| -3714.3 | 5 | `?n1 swc:heldBy dsw:person/chiara-ghidini.` |
| -3714.9 | 1 | `dsw:person/georg-lausen rdf:type ?n1.` |
| -3715.9 | 12 | `?n1 rdf:_3 dsw:person/eero-hyvoenen.` |
| -3716.7 | 5 | `?n1 rdf:_1 dsw:person/andreas-harth.` |
| -3717.0 | 9 | `dsw:person/georg-lausen swc:holdsRole ?n1.` |

| log factor | frequency | |
|---|---|---|
| -3717.4 | 13 | _:genid38 rdf:_1 ?n1. |
| | | dsw:conference/iswc/2008/paper/poster_demo/18 ?p2 _:genid38. |
| -3718.4 | 8 | ?n1 swc:heldBy dsw:person/achille-fokoue. |
| -3719.7 | 37 | _:genid59 ?p2 ?n1. |
| -3719.9 | 13 | ?n1 ?p2 dsw:person/aidan-boran. |
| -3720.5 | 20 | ?n1 ?p2 dsw:person/tomas-vitvar. |
| -3721.7 | 4 | dsw:conference/eswc/2012/paper/in-use-industrial/138/authorlist ?p2 ?n1. |
| -3723.0 | 9 | ?n1 dc:creator dsw:person/andreas-harth. |
| -3724.0 | 12 | ?n1 swc:heldBy dsw:person/bernhard-schandl. |
| -3726.0 | 58 | dsw:conference/iswc/2009/paper/inuse/143 dc:creator dsw:person/achille-fokoue. |
| | | ?n1 ?p2 dsw:person/achille-fokoue. |
| -3726.2 | 26 | ?n1 swrs:author dsw:person/eero-hyvoenen. |
| -3726.4 | 5 | ?n1 ?p2 dsw:person/petr-pollak. |
| -3727.7 | 5 | ?n1 ?p2 dsw:person/benjamin-coe. |
| -3728.1 | 24 | ?n1 swc:heldBy dsw:person/mathieu-daquin. |
| -3728.9 | 5 | ?n1 ?p2 dsw:person/naimul-basher. |
| -3729.6 | 0 | ?n1 ?p3 ?n2. |
| | | ?n2 rdf:type swc:Presenter. |
| -3730.0 | 2 | dsw:conference/iswc/2010/paper/445/authorlist ?p2 ?n1. |
| -3731.5 | 30 | _:genid96 ?p2 ?n1. |
| -3731.5 | 4 | ?n1 ?p2 dsw:person/michael-pool. |
| -3731.7 | 2 | dsw:conference/iswc/2010/paper/431/authorlist ?p2 ?n1. |
| -3731.9 | 5 | ?n1 ?p2 dsw:person/raluca-zaharia. |
| -3732.4 | 13 | dsw:conference/iswc/2008/paper/poster_demo/18 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n1. |
| | | ?n1 rdf:_1 ?n2. |
| -3732.6 | 6 | dsw:workshop/ssws/2008/main/chair/organisingcommitteemember ?p2 ?n1. |

| log factor | frequency | |
| --- | --- | --- |
| -3733.0 | 3 | `?n2 rdfs:label "Graph Kernels for RDF data".` |
| | | `?n2 dc:creator ?n1.` |
| -3735.3 | 5 | `?n1 ?p2 dsw:person/julien-gaugaz.` |
| -3738.0 | 45 | `http://www.eswc2007.org/pdf/eswc07-dellavalle.pdf rdf:type ?n2.` |
| | | `?n1 rdf:type ?n2.` |
| -3738.4 | 2 | `?n1 ?p2 dsw:person/sukwon-chung.` |
| -3739.9 | 5 | `_:bNode14 ?p2 ?n1.` |
| -3740.6 | 7 | `?n1 ?p2 dsw:person/bettina-bauer-messmer.` |
| -3741.2 | 5 | `dsw:conference/iswc/2010/paper/489/authorlist ?p2 ?n1.` |
| -3741.4 | 6 | `dsw:conference/iswc/2010/paper/261/authorlist ?p2 ?n1.` |
| -3742.5 | 36 | `_:genid99 ?p2 ?n1.` |
| -3743.8 | 16 | `_:genid121 ?p2 ?n1.` |
| -3744.2 | 0 | `?n1 ?p4 ?n2.` |
| | | `?n2 rdf:_1 ?n3.` |
| -3746.9 | 4 | `?n1 ?p2 dsw:person/stephen-larson.` |
| -3749.0 | 7 | `dsw:conference/www/2012/demo/demo-chair ?p2 ?n1.` |
| -3749.7 | 20 | `dsw:conference/dh/2010/abstracts/poster/ab-633 ?p2 ?n1.` |
| -3750.6 | 13 | `_:genid152 ?p2 ?n1.` |
| -3751.7 | 29 | `_:genid65 ?p2 ?n1.` |
| -3752.6 | 12 | `?n1 ?p2 dsw:person/vinhtuan-thai.` |
| -3753.1 | 6 | `dsw:person/doroteo-t-toledano ?p2 ?n1.` |
| -3755.1 | 59 | `dsw:conference/iswc-aswc/2007/tracks/posters-demos/papers/375 vu: mcaklein/onto/swrc_ext/2005/0` |
| | | `?n2 ?p3 ?n1.` |
| -3755.4 | 9 | `?n1 ?p2 dsw:person/violeta-damjanovic.` |
| -3759.6 | 34 | `_:genid69 ?p2 ?n1.` |
| -3761.7 | 9 | `dsw:person/alberto-musetti ?p2 ?n1.` |
| -3763.9 | 7 | `dsw:person/michalis-foukarakis ?p2 ?n1.` |

| log factor | frequency | |
| --- | --- | --- |
| -3764.3 | 17 | `_:genid150 ?p2 ?n1.` |
| -3769.0 | 15 | `?n1 ?p2 dsw:person/malte-kiesel.` |
| -3770.1 | 10 | `dsw:conference/isemantics/2009/paper/main/11 ?p2 ?n1.` |
| -3772.9 | 45 | `?n1 ?p2 dsw:person/elena-paslaru-bontas-simperl.` |
| -3780.1 | 18 | `dsw:conference/iswc/2008/paper/poster_demo/43 ?p2 ?n1.` |
| -3780.2 | 18 | `dsw:conference/eswc/2006/demo-papers/FD01-hitzler ?p2 ?n1.` |
| -3784.0 | 1290 | `?n1 rdf:type ?n3.` |
| | | `?n2 rdf:type ?n3.` |
| -3797.8 | 12 | `dsw:person/alejandro-jaimes ?p2 ?n1.` |
| -3800.4 | 26 | `dsw:person/georg-lausen ?p2 ?n1.` |
| -3833.3 | 233 | `?n1 ?p5 ?n3.` |
| | | `?n3 ?p4 ?n2.` |
| -3902.5 | 47 | `?n1 rdf:_10 ?n2.` |
| -3993.4 | 405 | `?n1 ?p4 ?n2.` |
| | | `?n2 rdf:type ?n3.` |
| -4021.2 | 2102 | `?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n2.` |
| | | `?n2 rdf:type ?n3.` |
| -4106.8 | 156 | `?n1 rdfs:label ?n2.` |
| -4204.5 | 373 | `?n1 ?p4 ?n3.` |
| | | `?n2 ?p4 ?n3.` |
| -4750.2 | 2914 | `?n1 rdf:_1 ?n2.` |
| -4761.6 | 248 | `?n1 ?p2 foaf:Person.` |
| -4802.7 | 293 | `?n1 rdf:type foaf:Person.` |
| -5632.4 | 301 | `?n1 foaf:name ?n2.` |
| -6987.6 | 3047 | `?n1 rdf:_2 ?n2.` |
| -9429.5 | 2385 | `?n1 foaf:maker ?n2.` |
| -10493.1 | 2528 | `?n1 dc:creator ?n2.` |

**Dogfood, top 500 by frequency**

| log factor | frequency | |
|---|---|---|
| -5052.5 | 16582 | `?n1 rdf:_1 ?n3.` |
| | | `?n1 rdf:_1 ?n2.` |
| -4021.9 | 6804 | `_:genid9 ?p4 ?n1.` |
| | | `_:genid9 ?p3 ?n2.` |
| 28232.1 | 5807 | `?n1 swc:heldBy ?n2.` |
| 122602.4 | 5709 | `?n1 swc:heldBy ?n2.` |
| | | `?n2 swc:holdsRole ?n1.` |
| -3801.0 | 3734 | `?n1 ?p3 dsw:conference/eswc/2011/programme-committee-member.` |
| | | `?n2 ?p3 dsw:conference/eswc/2011/programme-committee-member.` |
| -4178.4 | 3157 | `?n2 ?p4 ?n1.` |
| | | `?n2 rdf:_4 ?n3.` |
| -7299.7 | 2799 | `?n1 rdf:_2 ?n2.` |
| -4442.9 | 2449 | `?n1 rdf:_1 ?n2.` |
| -4599.6 | 2393 | `?n1 rdf:_1 ?n4.` |
| | | `?n2 rdf:_1 ?n4.` |
| | | `?n2 rdf:_1 ?n3.` |
| -9551.9 | 2193 | `?n1 foaf:maker ?n2.` |
| 6218.0 | 1939 | `?n1 rdf:type ?n2.` |
| -3804.8 | 1938 | `dsw:conference/iswc-aswc/2007/chair_12 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n2.` |
| -1305.2 | 1713 | `?n1 http://purl.org/dc/terms/creator ?n2.` |
| -15966.3 | 1672 | `?n1 http://purl.org/ontology/bibo/authorList ?n2.` |
| 3849.2 | 1663 | `?n1 swc:holdsRole ?n2.` |
| -1446.4 | 1587 | `?n1 rdf:type rdf:Seq.` |

| log factor | frequency | |
|---|---|---|
| 271.9 | 1587 | `?n1 ?p2 rdf:Seq.` |
| -2977.3 | 1541 | `?n2 rdf:_3 ?n3.` |
| | | `?n2 http://www.w3.org/2002/12/cal/ical_date ?n1.` |
| -197.2 | 1466 | `?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n2.` |
| -1595.5 | 1463 | `?n2 rdf:type ?n3.` |
| | | `?n2 rdf:_4 ?n1.` |
| -3974.4 | 1292 | `?n1 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n2.` |
| -3829.0 | 1216 | `_:genid9 ?p3 ?n2.` |
| | | `_:genid9 ?p3 ?n1.` |
| -3828.3 | 1209 | `dsw:conference/iswc-aswc/2007/chair_12 ?p5 ?n3.` |
| | | `?n1 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n2.` |
| -3082.3 | 1044 | `?n1 ?p3 ?n2.` |
| -4012.3 | 670 | `?n1 ?p5 ?n4.` |
| | | `?n2 ?p5 ?n4.` |
| | | `?n2 ?p5 ?n3.` |
| -4179.5 | 613 | `?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n2.` |
| | | `?n2 rdf:_7 ?n3.` |
| -3790.2 | 479 | `?n1 ?p3 ?n2.` |
| | | `?n1 ?p3 dsw:person/jason-jung.` |
| -3067.7 | 421 | `?n1 rdf:type ?n3.` |
| | | `?n1 rdf:type ?n2.` |
| -3808.7 | 398 | `dsw:person/rayid-ghani ?p3 ?n2.` |
| | | `?n1 ?p3 ?n2.` |
| -1939.1 | 396 | `?n1 http://www.w3.org/2002/12/cal/ical_date ?n2.` |
| -3745.9 | 359 | `dsw:person/rayid-ghani swc:holdsRole ?n2.` |
| | | `?n1 swc:holdsRole ?n2.` |

| log factor | frequency | |
|---|---|---|
| -2779.2 | 335 | `?n1 ?p2 dsw:conference/eswc/2011/programme-committee-member.` |
| -2727.6 | 334 | `?n1 swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| 1626.1 | 334 | `dsw:conference/eswc/2011/programme-committee-member swc:heldBy ?n1.` |
| | | `?n1 swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| -3707.5 | 333 | `dsw:person/rayid-ghani swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| | | `?n1 swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| -3729.5 | 333 | `dsw:person/rayid-ghani ?p2 dsw:conference/eswc/2011/programme-committee-member.` |
| | | `?n1 ?p2 dsw:conference/eswc/2011/programme-committee-member.` |
| -3171.2 | 309 | `?n1 rdf:type geo:Point.` |
| -2738.5 | 277 | `dsw:conference/eswc/2012/research-track-committee-member ?p2 ?n1.` |
| -2678.0 | 274 | `dsw:conference/eswc/2012/research-track-committee-member swc:heldBy ?n1.` |
| -3887.4 | 271 | `_:genid95 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n3.` |
| | | `?n1 ?p4 ?n2.` |
| -3754.4 | 164 | `_:genid9 ?p3 ?n1.` |
| | | `_:genid9 http://www.w3.org/2002/12/cal/ical_date ?n2.` |
| -3817.4 | 147 | `_:genid95 rdf:type ?n3.` |
| | | `?n1 rdf:type ?n3.` |
| | | `?n1 rdf:type ?n2.` |
| -3708.6 | 126 | `?n2 ?p3 ?n1.` |
| | | `?n2 http://www.w3.org/2002/12/cal/ical_date "2009-05-31T18:00:00".` |
| -3550.9 | 97 | `_:genid10 ?p2 ?n1.` |
| -4294.2 | 95 | `?n1 ?p2 foaf:Person.` |
| -3625.0 | 89 | `_:genid5 ?p2 ?n1.` |
| -3505.4 | 89 | `dsw:organization/yahoo-inc ?p2 ?n1.` |
| -3698.7 | 86 | `_:genid6 ?p2 ?n1.` |
| -3633.7 | 86 | `_:genid11 ?p2 ?n1.` |

| log factor | frequency | |
| --- | --- | --- |
| -3757.9 | 82 | `?n2 ?p3 ?n1.` |
| | | `?n2 rdf:_2 dsw:person/jan-hettenhausen.` |
| -3468.0 | 73 | `dsw:organization/yahoo-inc foaf:member ?n1.` |
| -3815.9 | 72 | `_:genid11 rdf:_1 ?n2.` |
| | | `?n1 ?p3 ?n2.` |
| -3755.1 | 70 | `dsw:workshop/om/2008/paper/main/21 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n2.` |
| | | `?n2 ?p3 ?n1.` |
| -3596.9 | 67 | `?n1 ?p2 dsw:person/haofen-wang.` |
| -3660.9 | 67 | `_:genid18 ?p2 ?n1.` |
| -3721.2 | 66 | `_:genid18 ?p2 ?n1.` |
| | | `_:genid18 rdf:_1 dsw:person/gary-wills.` |
| -3576.6 | 65 | `?n1 ?p2 dsw:person/deborah-mcguinness.` |
| -3719.8 | 65 | `_:genid1 ?p2 ?n1.` |
| -3970.0 | 64 | `?n1 rdf:_9 ?n2.` |
| -3695.6 | 59 | `_:genid27 ?p2 ?n1.` |
| -3696.5 | 59 | `_:genid50 ?p2 ?n1.` |
| -3688.2 | 52 | `_:genid24 ?p2 ?n1.` |
| -3740.6 | 52 | `?n1 ?p2 dsw:person/denny-vrandecic.` |
| -3737.8 | 51 | `_:genid11 rdf:_1 ?n2.` |
| | | `?n1 swrs:author ?n2.` |
| -3679.5 | 49 | `_:genid23 ?p2 ?n1.` |
| -3706.1 | 48 | `_:genid48 ?p2 ?n1.` |
| -3716.6 | 48 | `_:genid48 ?p2 ?n1.` |
| | | `dsw:conference/www/2008/paper/431 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid48.` |
| -3661.4 | 47 | `?n1 ?p2 dsw:person/maria-esther-vidal.` |
| -3681.1 | 47 | `_:genid46 ?p2 ?n1.` |
| -3692.9 | 47 | `_:genid36 ?p2 ?n1.` |
| -3609.9 | 43 | `dsw:workshop/swcs/2012/programme-committee-member ?p2 ?n1.` |

| log factor | frequency | |
| --- | --- | --- |
| -3729.1 | 43 | `_:genid56 ?p2 ?n1.` |
| -3677.4 | 41 | `_:genid45 ?p2 ?n1.` |
| -3564.6 | 40 | `dsw:workshop/swcs/2012/programme-committee-member swc:heldBy ?n1.` |
| -3611.2 | 39 | `?n1 ?p2 dsw:person/gong-cheng.` |
| -3698.4 | 39 | `?n1 ?p2 dsw:person/matthew-rowe.` |
| -3743.1 | 38 | `?n1 ?p2 dsw:person/giorgos-stoilos.` |
| -3725.6 | 37 | `_:genid82 ?p2 ?n1.` |
| -3597.5 | 37 | `dsw:conference/iswc/2012/paper/poster-demo-26 ?p2 ?n1.` |
| -3716.3 | 36 | `?n1 ?p2 dsw:person/katharina-siorpaes.` |
| -3758.7 | 36 | `_:genid66 ?p2 ?n1.` |
| -3730.4 | 36 | `_:genid78 ?p2 ?n1.` |
| -3649.8 | 36 | `?n1 ?p2 dsw:person/vanja-josifovski.` |
| -3759.6 | 34 | `_:genid69 ?p2 ?n1.` |
| -3731.8 | 33 | `_:genid72 ?p2 ?n1.` |
| -3693.2 | 32 | `dsw:workshop/sdow/2011/pcmember ?p2 ?n1.` |
| -3745.8 | 31 | `_:genid90 ?p2 ?n1.` |
| -3732.2 | 30 | `_:genid9 rdf:_3 ?n2.`<br>`_:genid9 http://www.w3.org/2002/12/cal/ical_date ?n1.` |
| -3730.5 | 30 | `?n1 rdf:_1 ?n2.`<br>`?n1 rdf:_1 dsw:person/jason-jung.` |
| -3751.7 | 29 | `_:genid65 ?p2 ?n1.` |
| -3737.3 | 26 | `?n1 ?p2 dsw:person/karl-aberer.` |
| -3665.6 | 24 | `_:genid5 rdf:_1 ?n1.` |
| -3737.1 | 23 | `?n1 ?p2 dsw:person/gang-wang.` |
| -3703.3 | 21 | `?n1 rdf:_3 ?n2.`<br>`?n1 http://www.w3.org/2002/12/cal/ical_date "2009-05-31T18:00:00".` |
| -3728.1 | 21 | `?n1 ?p3 "2009-05-31T18:00:00".`<br>`?n1 rdf:_3 ?n2.` |

| log factor | frequency | |
|---|---|---|
| -3769.4 | 20 | _:genid135 ?p2 ?n1. |
| -3670.9 | 19 | _:genid15 rdf:_1 ?n1. |
| -3697.6 | 16 | _:genid18 rdf:_2 ?n1. |
| -3733.0 | 15 | ?n1 foaf:maker dsw:person/deborah-mcguinness. |
| -3716.3 | 15 | ?n1 ?p2 dsw:person/rolf-gruetter. |
| -3787.8 | 14 | dsw:person/adrian-marte ?p2 ?n1. |
| -3788.7 | 14 | dsw:conference/dh/2010/abstracts/poster/ab-643 ?p2 ?n1. |
| -3722.1 | 14 | dsw:conference/iswc/2011/paper/poster-demo/40 ?p2 ?n1. |
| -3674.6 | 14 | _:genid23 rdf:_2 ?n1. |
| -3729.2 | 13 | dsw:workshop/LDOW/2008/paper/3 ?p2 ?n1. |
| -3691.8 | 13 | _:genid48 rdf:_1 ?n1. |
| -3673.6 | 13 | ?n1 ?p2 _:genid48. |
| -3646.4 | 13 | ?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid48. |
| -3690.6 | 13 | _:genid27 rdf:_3 ?n1. |
| -3717.4 | 12 | ?n1 ?p2 dsw:person/samur-araujo. |
| -3736.6 | 11 | ?n1 ?p2 dsw:person/kai-eckert. |
| -3703.9 | 11 | ?n1 ?p2 dsw:person/james-michaelis. |
| -3717.9 | 10 | ?n1 ?p2 dsw:person/varish-mulwad. |
| -3786.8 | 9 | dsw:person/kenneth-church ?p2 ?n1. |
| -3704.2 | 9 | ?n1 ?p2 dsw:person/jianqiang-li. |
| -3714.2 | 9 | ?n1 swc:heldBy dsw:person/matthew-rowe. |
| -3764.5 | 8 | dsw:person/nematollaah-shiri ?p2 ?n1. |
| -3704.0 | 8 | ?n1 http://purl.org/dc/terms/creator dsw:person/fabio-ciravegna. |
| -3672.5 | 8 | ?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid72. |
| -3694.1 | 8 | _:genid78 rdf:_2 ?n1. |
| -3703.7 | 7 | dsw:organization/yahoo-inc rdfs:label ?n1. |
| -3699.9 | 7 | dsw:organization/yahoo-inc foaf:name ?n1. |
| -3744.7 | 6 | dsw:conference/iswc/2012/paper/poster-demo-26/authors ?p2 ?n1. |

| log factor | frequency | |
|---|---|---|
| -3705.6 | 6 | `?n1 rdf:_1 dsw:person/willem-van-hage.` |
| -3742.8 | 5 | `dsw:conference/iswc/2010/paper/515/authorlist ?p2 ?n1.` |
| -3726.0 | 5 | `?n1 ?p2 dsw:person/lisa-lena-opas-haenninen.` |
| -3724.1 | 5 | `?n1 ?p2 dsw:person/yi-chin-tu.` |
| -3729.5 | 5 | `?n1 ?p2 dsw:person/yon-dourisboure.` |
| -3726.8 | 5 | `?n1 ?p2 dsw:person/kukulenz-dirk.` |
| -3729.2 | 5 | `?n1 ?p2 dsw:person/jan-zemanek.` |
| -3745.6 | 5 | `_:b5 ?p2 ?n1.` |
| -3694.8 | 5 | `_:genid72 rdf:_3 ?n1.` |
| -3726.4 | 5 | `?n1 ?p2 dsw:person/brett-cannon.` |
| -3711.8 | 5 | `_:genid1 rdf:_1 ?n1.` |
| -3680.9 | 4 | `?n1 http://www.w3.org/2002/12/cal/ical_date "2010-05-31T13:00:00".` |
| -3705.2 | 4 | `?n1 ?p2 "2010-05-31T13:00:00".` |
| -3663.1 | 4 | `dsw:conference/iswc/2012/paper/poster-demo-26 ?p1 dsw:person/james-michaelis.` |
| -3739.7 | 4 | `dsw:conference/www/2012/paper/518/talk/speaker ?p2 ?n1.` |
| -3707.7 | 3 | `_:genid135 rdf:_1 ?n1.` |
| -3725.5 | 3 | `dsw:workshop/ores/2010/paper/main/9/authorlist ?p2 ?n1.` |
| -3703.2 | 3 | `?n1 rdf:_1 dsw:person/gang-wang.` |
| -3703.3 | 3 | `?n1 dc:creator dsw:person/samur-araujo.` |
| -3696.2 | 3 | `?n1 rdf:_1 dsw:person/samur-araujo.` |
| -3667.3 | 3 | `dsw:conference/iswc/2011/paper/semantic-web-in-use/68 ?p1 dsw:person/jianqiang-li.` |
| -3668.7 | 3 | `dsw:workshop/LDOW/2008/paper/3 ?p1 dsw:person/jianqiang-li.` |
| -3668.7 | 3 | `dsw:workshop/LDOW/2008/paper/3 ?p1 dsw:person/yu-zhao.` |
| -3682.9 | 3 | `dsw:workshop/LDOW/2008/paper/3 ?p1 dsw:person/jianqiang-li.`<br>`dsw:workshop/LDOW/2008/paper/3 swc:isPartOf dsw:workshop/LDOW/2008/proceedings.` |
| -3684.5 | 3 | `?n1 rdf:_1 dsw:person/varish-mulwad.` |
| -3711.5 | 3 | `?n1 foaf:member dsw:person/xuanhui-wang.` |
| -3692.5 | 3 | `?n1 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid132.` |

| log factor | frequency | |
|---|---|---|
| -3718.2 | 3 | `_:genid69 rdf:type ?n1.` |
| -3707.6 | 3 | `_:genid18 ?p2 "2010-05-31T13:00:00".` |
| | | `?n1 http://www.w3.org/2002/12/cal/ical_date "2010-05-31T13:00:00".` |
| -3684.5 | 3 | `?n1 http://www.w3.org/2002/12/cal/ical_date "2008-04-25T15:30:00".` |
| -3707.5 | 2 | `dsw:person/rayid-ghani swc:holdsRole ?n1.` |
| -3704.5 | 2 | `dsw:workshop/LDOW/2008/paper/3 foaf:maker ?n1.` |
| -3703.5 | 2 | `?n1 foaf:maker dsw:person/yu-zhao.` |
| -3703.5 | 2 | `?n1 foaf:maker dsw:person/jianqiang-li.` |
| -3706.2 | 2 | `?n1 swc:heldBy dsw:person/kai-eckert.` |
| -3694.9 | 2 | `dsw:organization/yahoo-inc ?p1 "Yahoo! Inc".` |
| -3732.0 | 2 | `?n1 ?p2 "Yahoo! Inc".` |
| -3712.6 | 2 | `_:genid11 ?p2 ?n1.` |
| | | `dsw:workshop/obi/2008/paper/main/7 swrs:author ?n1.` |
| -3706.3 | 2 | `dsw:conference/iswc/2011/paper/poster-demo/40 swrs:author ?n1.` |
| -3701.4 | 2 | `dsw:conference/iswc/2011/paper/poster-demo/40 http://purl.org/dc/terms/creator ?n1.` |
| -3708.3 | 2 | `_:genid10 http://www.w3.org/2002/12/cal/ical_tzid ?n1.` |
| -3703.8 | 1 | `dsw:person/kenneth-church swc:holdsRole ?n1.` |
| -3689.9 | 1 | `dsw:person/lorenzino-vaccari ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| | | `dsw:person/rayid-ghani ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| -3667.9 | 1 | `dsw:person/lorenzino-vaccari swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| | | `dsw:person/rayid-ghani swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |
| -3692.5 | 1 | `dsw:person/lorenzino-vaccari ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| -3691.0 | 1 | `dsw:person/neil-ireson ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| | | `dsw:person/rayid-ghani ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| -3692.7 | 1 | `dsw:person/rayid-ghani ?p1 dsw:conference/eswc/2011/programme-committee-member.` |
| -3670.7 | 1 | `dsw:person/rayid-ghani swc:holdsRole dsw:conference/eswc/2011/programme-committee-member.` |

| log factor | frequency | |
| --- | --- | --- |
| -3669.6 | 1 | `dsw:workshop/swcs/2012/programme-committee-member swc:heldBy dsw:person/maria-esther-vidal.` |
| -3691.6 | 1 | `dsw:workshop/swcs/2012/programme-committee-member ?p1 dsw:person/maria-esther-vidal.` |
| -3688.4 | 1 | `dsw:organization/universidad-simon-bolivar ?p1 dsw:person/maria-esther-vidal.` |
| -3719.8 | 1 | `dsw:workshop/ores/2010/paper/main/9/authorlist ?p2 ?n1.` |
| | | `?n1 foaf:mbox_sha1sum "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3697.7 | 1 | `dsw:workshop/ores/2010/paper/main/9/authorlist rdf:_3 ?n1.` |
| | | `?n1 foaf:mbox_sha1sum "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3707.2 | 1 | `?n1 foaf:mbox_sha1sum "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3671.1 | 1 | `dsw:person/adrian-marte foaf:mbox_sha1sum "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3729.2 | 1 | `?n1 ?p2 "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3693.1 | 1 | `dsw:person/adrian-marte ?p1 "7ae854a556d73b4957e15b6f13efc08eaa48e3e4".` |
| -3685.9 | 1 | `dsw:conference/iswc/2010/paper/515/authorlist ?p1 dsw:person/samur-araujo.` |
| -3663.8 | 1 | `dsw:conference/iswc/2010/paper/515/authorlist rdf:_1 dsw:person/samur-araujo.` |
| -3680.4 | 1 | `dsw:conference/iswc/2010/paper/515 foaf:maker dsw:person/samur-araujo.` |
| | | `dsw:conference/iswc/2010/paper/515/authorlist ?p1 dsw:person/samur-araujo.` |
| -3701.3 | 1 | `?n1 http://purl.org/dc/terms/creator dsw:person/jianqiang-li.` |
| -3665.1 | 1 | `dsw:conference/iswc/2011/paper/semantic-web-in-use/68 http://purl.org/dc/terms/creator dsw:pers` |
| -3666.5 | 1 | `dsw:workshop/LDOW/2008/paper/3 foaf:maker dsw:person/jianqiang-li.` |
| -3666.5 | 1 | `dsw:workshop/LDOW/2008/paper/3 foaf:maker dsw:person/yu-zhao.` |
| -3690.7 | 1 | `dsw:workshop/LDOW/2008/paper/3 ?p1 http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-W` |
| -3666.3 | 1 | `dsw:workshop/LDOW/2008/paper/3 dc:creator dsw:person/jianqiang-li.` |
| -3699.5 | 1 | `?n1 rdf:_1 dsw:person/lisa-lena-opas-haenninen.` |
| -3663.3 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-775/authors rdf:_1 dsw:person/lisa-lena-opas-haennine` |

| log factor | frequency | |
|---|---|---|
| -3685.3 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-775/authors ?p1 dsw:person/lisa-lena-opas-haenninen.` |
| | | |
| -3705.0 | 1 | `dsw:person/nematollaah-shiri foaf:firstName ?n1.` |
| -3698.6 | 1 | `dsw:person/nematollaah-shiri ?p1 foaf:Person.` |
| -3676.6 | 1 | `dsw:person/nematollaah-shiri rdf:type foaf:Person.` |
| -3712.8 | 1 | `dsw:person/nematollaah-shiri rdf:type ?n1.` |
| -3686.6 | 1 | `_:genid24 ?p1 dsw:person/yi-chin-tu.` |
| -3731.0 | 1 | `dsw:conference/dh/2010/abstracts/poster/ab-643 http://purl.org/ontology/bibo/authorList ?n1.` <br> `?n1 rdf:_1 ?n2.` |
| | | |
| -3705.5 | 1 | `dsw:conference/dh/2010/abstracts/poster/ab-643 http://purl.org/ontology/bibo/authorList ?n1.` |
| | | |
| -3691.4 | 1 | `dsw:conference/dh/2010/abstracts/poster/ab-643 ?p1 dsw:conference/dh/2010/abstracts/poster/ab-6` |
| | | |
| -3727.5 | 1 | `?n1 ?p2 dsw:conference/dh/2010/abstracts/poster/ab-643/authors.` |
| -3669.3 | 1 | `dsw:conference/dh/2010/abstracts/poster/ab-643 http://purl.org/ontology/bibo/authorList dsw:con` |
| | | |
| -3705.5 | 1 | `?n1 http://purl.org/ontology/bibo/authorList dsw:conference/dh/2010/abstracts/poster/ab-643/aut` |
| | | |
| -3670.1 | 1 | `dsw:conference/eswc/2012/research-track-committee-member swc:heldBy dsw:person/kai-eckert.` |
| -3692.1 | 1 | `dsw:conference/eswc/2012/research-track-committee-member ?p1 dsw:person/kai-eckert.` |
| -3750.6 | 1 | `?n1 ?p3 ?n2.` <br> `?n2 foaf:made dsw:conference/www/2010/paper/main/23.` |
| -3688.0 | 1 | `_:genid90 ?p1 dsw:person/jan-zemanek.` |
| -3675.7 | 1 | `_:genid15 rdf:_1 dsw:person/c-maria-keet.` |
| -3671.7 | 1 | `_:genid15 rdf:_1 dsw:person/daniel-bachlechner.` |
| -3699.6 | 1 | `dsw:conference/iswc/2012/paper/poster-demo-26/authors rdf:_1 ?n1.` |
| -3702.8 | 1 | `dsw:conference/iswc/2012/paper/poster-demo-26/authors rdf:_2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -3666.6 | 1 | `dsw:conference/iswc/2012/paper/poster-demo-26/authors rdf:_2 dsw:person/deborah-mcguinness.` |
| -3688.7 | 1 | `dsw:conference/iswc/2012/paper/poster-demo-26/authors ?p1 dsw:person/deborah-mcguinness.` |
| -3712.0 | 1 | `dsw:conference/iswc/2011/paper/doctoral-consortium/14/authorlist ?p2 ?n1.` |
| -3675.9 | 1 | `dsw:conference/iswc/2011/paper/doctoral-consortium/14/authorlist ?p1 dsw:person/varish-mulwad.` |
| -3653.8 | 1 | `dsw:conference/iswc/2011/paper/doctoral-consortium/14/authorlist rdf:_1 dsw:person/varish-mulwa` |
| -3662.5 | 1 | `_:b3 rdf:_1 dsw:person/varish-mulwad.` |
| -3684.5 | 1 | `_:b3 ?p1 dsw:person/varish-mulwad.` |
| -3698.7 | 1 | `_:b3 rdf:_1 ?n1.` |
| -3667.4 | 1 | `dsw:organization/yahoo-inc rdfs:label "Yahoo! Inc".` |
| -3670.4 | 1 | `dsw:organization/yahoo-inc foaf:member dsw:person/xuanhui-wang.` |
| -3695.7 | 1 | `_:genid11 rdf:_1 ?n1.`<br>`dsw:workshop/obi/2008/paper/main/7 swrs:author ?n1.` |
| -3699.7 | 1 | `_:genid11 rdf:_1 ?n1.`<br>`dsw:conference/iswc/2011/paper/poster-demo/40 swrs:author ?n1.` |
| -3698.8 | 1 | `?n1 http://purl.org/dc/terms/creator dsw:person/akira-mori.` |
| -3699.2 | 1 | `?n1 swrs:editor dsw:person/denny-vrandecic.` |
| -3663.1 | 1 | `dsw:workshop/insemtive/2008/proceedings swrs:editor dsw:person/denny-vrandecic.` |
| -3685.1 | 1 | `dsw:workshop/insemtive/2008/proceedings ?p1 dsw:person/denny-vrandecic.` |
| -3690.3 | 1 | `_:genid48 ?p1 dsw:person/willem-van-hage.` |
| -3668.3 | 1 | `_:genid48 rdf:_1 dsw:person/willem-van-hage.` |
| -3665.3 | 1 | `dsw:conference/www/2008/paper/431 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid48.` |
| -3687.4 | 1 | `dsw:conference/www/2008/paper/431 ?p1 _:genid48.` |
| -3701.7 | 1 | `dsw:conference/www/2007/paper/main/429 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n1.` |
| -3703.1 | 1 | `?n1 foaf:maker dsw:person/brett-cannon.` |
| -3691.2 | 1 | `_:genid36 ?p1 dsw:person/vanja-josifovski.` |

| log factor | frequency | |
|---|---|---|
| -3728.0 | 1 | `dsw:workshop/om/2008/paper/main/21 vu: mcaklein/onto/swrc_ext/2005/05_authorList ?n1.` |
| | | `?n1 rdf:_7 ?n2.` |
| -3693.5 | 1 | `_:genid16 rdf:_7 ?n1.` |
| | | `dsw:workshop/om/2008/paper/main/21 vu: mcaklein/onto/swrc_ext/2005/05_authorList _:genid16.` |
| -3690.1 | 1 | `_:genid23 ?p1 dsw:person/zheng-chen.` |
| -3697.6 | 1 | `dsw:conference/iswc/2011/paper/semantic-web-in-use/76/authorlist rdf:_9 ?n1.` |
| -3691.1 | 1 | `dsw:workshop/sdow/2011/pcmember ?p1 dsw:person/matthew-rowe.` |
| -3669.0 | 1 | `dsw:workshop/sdow/2011/pcmember swc:heldBy dsw:person/matthew-rowe.` |
| -3690.8 | 1 | `dsw:conference/iswc/2011/paper/industry/21/authorlist rdf:_1 ?n1.` |
| -3707.0 | 1 | `?n1 rdf:_1 dsw:person/karl-aberer.` |
| -3670.8 | 1 | `_:genid1 rdf:_1 dsw:person/karl-aberer.` |
| -3692.9 | 1 | `_:genid1 ?p1 dsw:person/karl-aberer.` |
| -3700.1 | 1 | `?n1 rdf:_1 dsw:person/peyman-sazedj.` |
| -3700.1 | 1 | `_:genid18 http://www.w3.org/2002/12/cal/ical_date ?n1.` |
| -3663.9 | 1 | `_:genid18 http://www.w3.org/2002/12/cal/ical_date "2010-05-31T13:00:00".` |
| -3686.0 | 1 | `_:genid18 ?p1 "2010-05-31T13:00:00".` |
| -3671.5 | 1 | `_:genid11 http://www.w3.org/2002/12/cal/ical_date "2010-05-31T13:00:00".` |
| | | `_:genid18 ?p1 "2010-05-31T13:00:00".` |
| -3707.6 | 1 | `_:genid11 http://www.w3.org/2002/12/cal/ical_date ?n1.` |
| | | `_:genid18 ?p2 ?n1.` |
| -3693.5 | 1 | `_:genid11 ?p2 "2010-05-31T13:00:00".` |
| | | `_:genid18 ?p1 "2010-05-31T13:00:00".` |
| -3809.4 | 1 | `dsw:conference/iswc-aswc/2007/chair_12 swc:heldBy ?n1.` |
| | | `?n2 ?p4 ?n3.` |
| | | `?n2 ?p4 ?n1.` |
| -3707.5 | 1 | `dsw:conference/eswc/2007/time-20070605T153000EuropeVienna rdf:type ?n1.` |
| -3695.5 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors ?p1 rdf:Seq.` |
| -3673.4 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:type rdf:Seq.` |

| log factor | frequency | |
| --- | --- | --- |
| -3709.6 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:type ?n1.` |
| -3699.6 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:type ?n1.` |
| | | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:_4 dsw:person/stefan-beyer.` |
| -3735.8 | 1 | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:type ?n2.` |
| | | `dsw:conference/dh/2010/abstracts/paper/ab-684/authors rdf:_4 ?n1.` |
| -3709.7 | 1 | `dsw:conference/www/2012/paper/518/talk/speaker rdf:type ?n1.` |
| -3744.2 | 0 | `?n1 ?p4 ?n2.` |
| | | `?n2 rdf:_7 ?n3.` |

## AIFB, top 100 by log factor

| log factor | frequency | |
| --- | --- | --- |
| 8919.0 | 2477 | `?n1 swrs:isAbout ?n2.` |
| 3857.8 | 4124 | `?n1 rdf:type ?n2.` |
| 923.9 | 1066 | `?n1 ?p2 swrs:Person.` |
| 827.3 | 1045 | `?n1 rdf:type swrs:Person.` |
| -141.5 | 1240 | `?n1 ?p2 swrs:Publication.` |
| -167.7 | 1222 | `?n1 rdf:type swrs:Publication.` |
| -893.7 | 1529 | `?n1 swrs:author ?n2.` |
| -907.8 | 3388 | `?n1 ?p3 ?n2.` |
| -939.9 | 687 | `?n1 rdf:type swrs:InProceedings.` |
| -975.2 | 687 | `?n1 ?p2 swrs:InProceedings.` |
| -1495.3 | 31 | `?n1 ?p2 owl:DatatypeProperty.` |
| -1536.6 | 146 | `?n1 rdf:type swrs:ResearchTopic.` |
| -1582.5 | 152 | `?n1 rdf:type owl:Restriction.` |
| -1583.0 | 147 | `?n1 ?p2 swrs:ResearchTopic.` |
| -1609.0 | 152 | `?n1 owl:onProperty ?n2.` |

| log factor | frequency | |
|---|---|---|
| -1613.5 | 152 | `?n1 ?p2 owl:Restriction.` |
| -1668.8 | 55 | `?n1 rdf:type owl:Class.` |
| -1696.9 | 55 | `?n1 ?p2 owl:Class.` |
| -1745.2 | 65 | `?n1 rdf:type swrs:PhDStudent.` |
| -1747.9 | 40 | `?n1 swrs:isAbout http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id5` |
| -1767.8 | 78 | `?n1 rdf:type swrs:Project.` |
| -1769.7 | 13 | `swrs:InBook rdfs:subClassOf ?n1.` |
| -1775.0 | 87 | `?n1 ?p2 swrs:Project.` |
| -1775.1 | 40 | `?n1 ?p2 http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id52instance` |
| -1777.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance swrs:isAbout h` |
| -1779.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:publication http://` |
| -1780.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance rdf:typ` |
| -1781.1 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance swrs:name "Sa` |
| -1784.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type swrs:A` |
| -1784.3 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id655instance rdf:type swrs` |
| -1784.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id262instance rdf:type swrs` |
| -1785.0 | 1 | `_:ub1bL199C18 rdf:type owl:Restriction.` |
| -1785.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id583instance rdf:type swrs` |

| log factor | frequency | |
|---|---|---|
| -1785.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id637instance rdf:type swrs` |
| -1785.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id594instance rdf:type swrs:` |
| -1786.6 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id684instance rdf:type swrs:` |
| -1786.6 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id499instance rdf:type swrs:` |
| -1786.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id841instance rdf:type swrs:` |
| -1787.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2008instance rdf:type swrs:Person.` |
| -1787.1 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type swrs:P` |
| -1787.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id663instance rdf:type swrs:` |
| -1787.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type swrs:Person.` |
| -1787.3 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance rdf:type swrs:P` |
| -1787.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2118instance rdf:type swrs:Person.` |
| -1787.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance rdf:type swrs:P` |
| -1787.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance rdf:type swrs:Person.` |
| -1788.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id709instance rdf:type swrs` |

| log factor | frequency | |
|---|---|---|
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance rdf:type swrs |
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance rdf:type swrs |
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance rdf:type swrs |
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id703instance rdf:type swrs |
| -1791.2 | 1 | swrs:title ?p1 owl:DatatypeProperty. |
| -1796.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance ?p1 http://www |
| -1796.6 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance ?p1 http://www |
| -1798.8 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance ?p1 http://www.aifb.uni- |
| -1799.9 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance ?p1 swr |
| -1800.1 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p1 "Sam Chap |
| -1800.6 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p1 http://ww |
| -1801.0 | 14 | swrs:InBook ?p2 ?n1. |
| -1802.1 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id28instance ?p1 swr |
| -1802.2 | 227 | ?n1 swrs:phone ?n2. |
| -1803.3 | 1 | swrs:Proceedings ?p1 owl:Class. |
| -1803.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id655instance ?p1 swrs:Pers |

| log factor | frequency | |
|---|---|---|
| -1803.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id350instance ?p1 swrs:Pers` |
| -1803.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id262instance ?p1 swrs:Pers` |
| -1804.0 | 1 | `_:ub1bL474C18 ?p1 owl:Restriction.` |
| -1804.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id583instance ?p1 swrs:Pers` |
| -1804.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id810instance ?p1 swrs:Pers` |
| -1804.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id184instance ?p1 swrs:Pers` |
| -1805.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id594instance ?p1 swrs:InProc` |
| -1805.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id275instance ?p1 swrs:InProc` |
| -1805.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id841instance ?p1 swrs:InProc` |
| -1806.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2008instance ?p1 swrs:Person.` |
| -1806.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance ?p1 swrs:Public` |
| -1806.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id663instance ?p1 swrs:InProc` |
| -1806.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance ?p1 swrs:Person.` |
| -1806.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance ?p1 swrs:Public` |
| -1806.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id773instance ?p1 swrs:Public` |

| log factor | frequency | |
|---|---|---|
| -1806.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance ?p1 swrs:Public` |
| -1806.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance ?p1 swrs:Person.` |
| -1806.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id954instance ?p1 swrs:Public` |
| -1806.7 | 7 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:publication ?n1.` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id820instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id786instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id848instance ?p1 swrs:Pers` |
| -1807.3 | 1 | `_:ub1bL560C18 ?p1 swrs:Person.` |
| -1808.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id165instance swrs:name ?n1` |
| -1808.9 | 2 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:worksAtProject ?n1.` |
| -1811.1 | 1 | `?n1 swrs:name "CKDD - Conceptual Knowledge Discovery"|http://www.w3.org/2001/XMLSchema_string>.` |
| -1811.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance rdf:typ` |

| log factor | frequency | |
| --- | --- | --- |
| -1812.1 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance swrs:name ?n1` |
| -1812.1 | 1 | `?n1 swrs:name "Sam Chapman"|http://www.w3.org/2001/XMLSchema_string>.` |
| -1813.1 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id68instance swrs:phone ?n1.` |
| -1813.3 | 9 | `swrs:Organization ?p2 ?n1.` |
| -1813.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id79instance swrs:na` |
| -1814.1 | 1 | `_:ub1bL474C18 owl:onProperty ?n1.` |
| -1814.8 | 1 | `swrs:Organization rdf:type ?n1.` |
| -1815.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id18instance rdf:type ?n1.` |
| -1815.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id814instance rdf:type ?n1.` |
| -1815.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id20instance rdf:typ` |
| -1816.0 | 1 | `_:ub1bL422C18 rdf:type ?n1.` |
| -1816.0 | 1 | `_:ub1bL355C18 rdf:type ?n1.` |
| -1818.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance rdf:type ?n1.` |
| -1818.8 | 152 | `?n1 swrs:author http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id20instance.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id593instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id439instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id804instance rdf:type ?n1.` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id305instance rdf:type ?n1.` |
| -1820.7 | 22 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance ?p2 ?n1.` |
| -1821.4 | 1 | `swrs:member ?p2 ?n1.` |
| -1821.6 | 2 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type ?n1.` |
| -1822.2 | 1 | `swrs:name ?p2 ?n1.` |
| -1822.2 | 1 | `swrs:title ?p2 ?n1.` |
| -1824.5 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id19instance rdf:type ?n1.` |
| -1824.6 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type ?n1.` |
| -1824.6 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1089instance rdf:type ?n1.` |
| -1825.1 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance rdf:type ?n1.` |
| -1825.9 | 4 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id552instance swrs:author ?n1` |
| -1826.2 | 3 | `_:ub1bL658C27 ?p2 ?n1.` |
| -1826.2 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id617instance rdf:type ?n1.` |
| -1826.2 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id499instance rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -1826.2 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id516instance rdf:type ?n1.` |
| -1826.5 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance rdf:type ?n1.` |
| -1826.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1333instance rdf:type ?n1.` |
| -1826.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id512instance rdf:type ?n1.` |
| -1826.8 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id572instance rdf:type ?n1.` |
| -1826.8 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance rdf:type ?n1.` |
| -1827.0 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id64instance rdf:type ?n1.` |
| -1827.0 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id777instance rdf:type ?n1.` |
| -1827.5 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1306instance rdf:type ?n1.` |
| -1827.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance rdf:type ?n1.` |
| -1828.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1166instance rdf:type ?n1.` |
| -1830.1 | 1 | `?n1 ?p2 "CKDD - Conceptual Knowledge Discovery"|http://www.w3.org/2001/XMLSchema_string>.` |
| -1831.1 | 1 | `?n1 ?p2 "Sam Chapman"|http://www.w3.org/2001/XMLSchema_string>.` |
| -1833.9 | 11 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance swrs:isAbout ?` |
| -1834.8 | 3 | `?n1 ?p2 swrs:Graduate.` |
| -1837.2 | 3 | `_:ub1bL58C27 ?p2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -1837.9 | 3 | `_:ub1bL474C18 ?p2 ?n1.` |
| -1839.0 | 3 | `_:ub1bL102C18 ?p2 ?n1.` |
| -1839.6 | 8 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance ?p2 ?n1.` |
| -1839.9 | 4 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance ?p2 ?n1` |
| -1840.0 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id144instance ?p2 ?n1.` |
| -1840.8 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id190instance ?p2 ?n1.` |
| -1841.0 | 14 | `http://www.aifb.uni-karlsruhe.de/Projekte/viewProjektOWL/id51instance swrs:member ?n1.`<br>`?n1 rdf:type ?n2.` |
| -1841.0 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance ?p2 ?n1.` |
| -1841.0 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance ?p2 ?n1.` |
| -1841.7 | 4 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id774instance ?p2 ?n1.` |
| -1842.8 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p2 ?n1.` |
| -1842.8 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id607instance ?p2 ?n1.` |
| -1843.9 | 6 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id530instance ?p2 ?n1.` |
| -1844.5 | 3 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id804instance ?p2 ?n1.` |
| -1850.2 | 4 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id165instance ?p2 ?n1.` |
| -1850.6 | 12 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2067instance ?p2 ?n1.` |
| -1860.0 | 1907 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance rdf:type ?n2.`<br>`?n1 rdf:type ?n2.` |
| -1869.8 | 17 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance ?p2 ?n1.` |
| -1877.4 | 10 | `?n1 ?p2 http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1202instance.` |
| -1882.2 | 9 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id275instance ?p2 ?n1.` |
| -1883.4 | 18 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1272instance ?p2 ?n1.` |
| -1883.7 | 13 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance ?p2 ?n1.` |
| -1887.6 | 1130 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type ?n2.`<br>`?n1 ?p3 ?n2.` |

| log factor | frequency | |
|---|---|---|
| -1888.2 | 12 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id228instance ?p2 ?n1.` |
| -1895.2 | 11 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id572instance ?p2 ?n1.` |
| -1903.8 | 16 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1305instance ?p2 ?n1.` |
| -1904.3 | 16 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1317instance ?p2 ?n1.` |
| -1908.7 | 13 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1152instance ?p2 ?n1.` |
| -1930.3 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1124instance ?p2 ?n1.` |
| -1931.5 | 2184 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance ?p3 ?n2.`<br>`?n1 ?p3 ?n2.` |
| -1937.4 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id882instance ?p2 ?n1.` |
| -1942.5 | 25 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance ?p2 ?n1.` |
| -1942.7 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1025instance ?p2 ?n1.` |
| -2254.8 | 24274 | `?n1 rdf:type ?n3.`<br>`?n2 rdf:type ?n3.` |
| -4014.6 | 494 | `?n1 swrs:name ?n2.` |

**AIFB, top 100 by frequency**

| log factor | frequency | |
|---|---|---|
| -2254.8 | 24274 | `?n1 rdf:type ?n3.`<br>`?n2 rdf:type ?n3.` |
| 3857.8 | 4124 | `?n1 rdf:type ?n2.` |
| -907.8 | 3388 | `?n1 ?p3 ?n2.` |
| 8919.0 | 2477 | `?n1 swrs:isAbout ?n2.` |
| -1931.5 | 2184 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance ?p3 ?n2.`<br>`?n1 ?p3 ?n2.` |
| -1860.0 | 1907 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance rdf:type ?n2.`<br>`?n1 rdf:type ?n2.` |

| log factor | frequency | |
|---|---|---|
| -893.7 | 1529 | `?n1 swrs:author ?n2.` |
| -141.5 | 1240 | `?n1 ?p2 swrs:Publication.` |
| -167.7 | 1222 | `?n1 rdf:type swrs:Publication.` |
| -1887.6 | 1130 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type ?n2.` |
| | | `?n1 ?p3 ?n2.` |
| 923.9 | 1066 | `?n1 ?p2 swrs:Person.` |
| 827.3 | 1045 | `?n1 rdf:type swrs:Person.` |
| -975.2 | 687 | `?n1 ?p2 swrs:InProceedings.` |
| -939.9 | 687 | `?n1 rdf:type swrs:InProceedings.` |
| -4014.6 | 494 | `?n1 swrs:name ?n2.` |
| -1802.2 | 227 | `?n1 swrs:phone ?n2.` |
| -1613.5 | 152 | `?n1 ?p2 owl:Restriction.` |
| -1582.5 | 152 | `?n1 rdf:type owl:Restriction.` |
| -1609.0 | 152 | `?n1 owl:onProperty ?n2.` |
| -1818.8 | 152 | `?n1 swrs:author http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id20instance.` |
| -1583.0 | 147 | `?n1 ?p2 swrs:ResearchTopic.` |
| -1536.6 | 146 | `?n1 rdf:type swrs:ResearchTopic.` |
| -1775.0 | 87 | `?n1 ?p2 swrs:Project.` |
| -1767.8 | 78 | `?n1 rdf:type swrs:Project.` |
| -1745.2 | 65 | `?n1 rdf:type swrs:PhDStudent.` |
| -1668.8 | 55 | `?n1 rdf:type owl:Class.` |
| -1696.9 | 55 | `?n1 ?p2 owl:Class.` |
| -1775.1 | 40 | `?n1 ?p2 http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id52instance` |
| -1747.9 | 40 | `?n1 swrs:isAbout http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id5` |
| -1495.3 | 31 | `?n1 ?p2 owl:DatatypeProperty.` |
| -1942.5 | 25 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance ?p2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -1820.7 | 22 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance ?p2 ?n1.` |
| -1937.4 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id882instance ?p2 ?n1.` |
| -1942.7 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1025instance ?p2 ?n1.` |
| -1930.3 | 20 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1124instance ?p2 ?n1.` |
| -1883.4 | 18 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1272instance ?p2 ?n1.` |
| -1869.8 | 17 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance ?p2 ?n1.` |
| -1903.8 | 16 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1305instance ?p2 ?n1.` |
| -1904.3 | 16 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1317instance ?p2 ?n1.` |
| -1801.0 | 14 | `swrs:InBook ?p2 ?n1.` |
| -1841.0 | 14 | `http://www.aifb.uni-karlsruhe.de/Projekte/viewProjektOWL/id51instance swrs:member ?n1.` |
| | | `?n1 rdf:type ?n2.` |
| -1769.7 | 13 | `swrs:InBook rdfs:subClassOf ?n1.` |
| -1908.7 | 13 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1152instance ?p2 ?n1.` |
| -1883.7 | 13 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance ?p2 ?n1.` |
| -1888.2 | 12 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id228instance ?p2 ?n1.` |
| -1850.6 | 12 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2067instance ?p2 ?n1.` |
| -1833.9 | 11 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance swrs:isAbout ?` |
| -1895.2 | 11 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id572instance ?p2 ?n1.` |
| -1877.4 | 10 | `?n1 ?p2 http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1202instance.` |
| -1882.2 | 9 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id275instance ?p2 ?n1.` |
| -1813.3 | 9 | `swrs:Organization ?p2 ?n1.` |
| -1839.6 | 8 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance ?p2 ?n1.` |
| -1806.7 | 7 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:publication ?n1.` |
| -1843.9 | 6 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id530instance ?p2 ?n1.` |
| -1839.9 | 4 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance ?p2 ?n1` |

| log factor | frequency | |
| --- | --- | --- |
| -1850.2 | 4 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id165instance ?p2 ?n1. |
| -1825.9 | 4 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id552instance swrs:author ?n1 |
| -1841.7 | 4 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id774instance ?p2 ?n1. |
| -1837.9 | 3 | _:ub1bL474C18 ?p2 ?n1. |
| -1837.2 | 3 | _:ub1bL58C27 ?p2 ?n1. |
| -1840.8 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id190instance ?p2 ?n1. |
| -1841.0 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance ?p2 ?n1. |
| -1834.8 | 3 | ?n1 ?p2 swrs:Graduate. |
| -1841.0 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance ?p2 ?n1. |
| -1842.8 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p2 ?n1. |
| -1839.0 | 3 | _:ub1bL102C18 ?p2 ?n1. |
| -1844.5 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id804instance ?p2 ?n1. |
| -1826.2 | 3 | _:ub1bL658C27 ?p2 ?n1. |
| -1840.0 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id144instance ?p2 ?n1. |
| -1842.8 | 3 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id607instance ?p2 ?n1. |
| -1808.9 | 2 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:worksAtProject ?n1. |
| -1821.6 | 2 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type ?n1. |
| -1825.1 | 2 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance rdf:type ?n1. |
| -1826.2 | 2 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id617instance rdf:type ?n1. |
| -1827.5 | 2 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1306instance rdf:type ?n1. |
| -1826.7 | 2 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id512instance rdf:type ?n1. |

| log factor | frequency | |
|---|---|---|
| -1826.8 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id572instance rdf:type ?n1.` |
| -1824.6 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type ?n1.` |
| -1827.0 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id64instance rdf:type ?n1.` |
| -1827.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance rdf:type ?n1.` |
| -1826.2 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id499instance rdf:type ?n1.` |
| -1827.0 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id777instance rdf:type ?n1.` |
| -1826.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1333instance rdf:type ?n1.` |
| -1824.6 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1089instance rdf:type ?n1.` |
| -1826.2 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id516instance rdf:type ?n1.` |
| -1824.5 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id19instance rdf:type ?n1.` |
| -1826.5 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance rdf:type ?n1.` |
| -1828.7 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1166instance rdf:type ?n1.` |
| -1826.8 | 2 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id281instance rdf:type ?n1.` |
| -1798.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance ?p1 http://www.aifb.uni-` |

| log factor | frequency | |
|---|---|---|
| -1779.7 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2115instance swrs:publication http:// |
| -1804.0 | 1 | _:ub1bL474C18 ?p1 owl:Restriction. |
| -1814.1 | 1 | _:ub1bL474C18 owl:onProperty ?n1. |
| -1816.0 | 1 | _:ub1bL422C18 rdf:type ?n1. |
| -1802.1 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id28instance ?p1 swr |
| -1780.9 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance rdf:typ |
| -1811.9 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance rdf:typ |
| -1799.9 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id54instance ?p1 swr |
| -1804.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id583instance ?p1 swrs:Pers |
| -1785.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id583instance rdf:type swrs |
| -1787.2 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance rdf:type swrs:Person. |
| -1806.2 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2151instance ?p1 swrs:Person. |
| -1796.6 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1116instance ?p1 http://www |
| -1777.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance swrs:isAbout h |
| -1796.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id1073instance ?p1 http://www |
| -1822.2 | 1 | swrs:name ?p2 ?n1. |

| log factor | frequency | |
|---|---|---|
| -1787.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id663instance rdf:type swrs:` |
| -1806.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id663instance ?p1 swrs:InProd` |
| -1788.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id709instance rdf:type swrs` |
| -1784.3 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id655instance rdf:type swrs` |
| -1803.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id655instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id848instance ?p1 swrs:Pers` |
| -1816.0 | 1 | `_:ub1bL355C18 rdf:type ?n1.` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance ?p1 swrs:Pers` |
| -1788.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance rdf:type swrs` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id364instance rdf:type ?n1.` |
| -1804.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id810instance ?p1 swrs:Pers` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance ?p1 swrs:Pers` |
| -1788.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance rdf:type swrs` |
| -1819.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id179instance rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -1805.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id594instance ?p1 swrs:InProc` |
| -1785.9 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id594instance rdf:type swrs:` |
| -1807.0 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id820instance ?p1 swrs:Pers` |
| -1807.3 | 1 | `_:ub1bL560C18 ?p1 swrs:Person.` |
| -1804.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id184instance ?p1 swrs:Pers` |
| -1786.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id841instance rdf:type swrs:` |
| -1805.8 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id841instance ?p1 swrs:InProc` |
| -1786.6 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id684instance rdf:type swrs:` |
| -1784.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type swrs:A` |
| -1787.1 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance rdf:type swrs:P` |
| -1806.2 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id333instance ?p1 swrs:Public` |
| -1806.7 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id954instance ?p1 swrs:Public` |
| -1806.4 | 1 | `http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id773instance ?p1 swrs:Public` |
| -1815.5 | 1 | `http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id20instance rdf:typ` |

| log factor | frequency | |
|---|---|---|
| -1803.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id350instance ?p1 swrs:Pers |
| -1803.9 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id262instance ?p1 swrs:Pers |
| -1784.9 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id262instance rdf:type swrs |
| -1807.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance ?p1 swrs:Pers |
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance rdf:type ?n1. |
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id598instance rdf:type swrs |
| -1813.1 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id68instance swrs:phone ?n1. |
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id305instance rdf:type ?n1. |
| -1822.2 | 1 | swrs:title ?p2 ?n1. |
| -1791.2 | 1 | swrs:title ?p1 owl:DatatypeProperty. |
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance rdf:type ?n1. |
| -1800.6 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p1 http://ww |
| -1812.1 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance swrs:name ?n1 |
| -1781.1 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance swrs:name "Sa |
| -1800.1 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id576instance ?p1 "Sam Chap |
| -1831.1 | 1 | ?n1 ?p2 "Sam Chapman"\|http://www.w3.org/2001/XMLSchema_string>. |

| log factor | frequency | |
|---|---|---|
| -1812.1 | 1 | ?n1 swrs:name "Sam Chapman"\|http://www.w3.org/2001/XMLSchema_string>. |
| -1813.8 | 1 | http://www.aifb.uni-karlsruhe.de/Forschungsgebiete/viewForschungsgebietOWL/id79instance swrs:na |
| -1811.1 | 1 | ?n1 swrs:name "CKDD – Conceptual Knowledge Discovery"\|http://www.w3.org/2001/XMLSchema_string>. |
| -1830.1 | 1 | ?n1 ?p2 "CKDD – Conceptual Knowledge Discovery"\|http://www.w3.org/2001/XMLSchema_string>. |
| -1808.5 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id165instance swrs:name ?n1 |
| -1785.0 | 1 | _:ub1bL199C18 rdf:type owl:Restriction. |
| -1815.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id18instance rdf:type ?n1. |
| -1787.5 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance rdf:type swrs:P |
| -1806.5 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id214instance ?p1 swrs:Public |
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id593instance rdf:type ?n1. |
| -1786.6 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id499instance rdf:type swrs:I |
| -1805.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id275instance ?p1 swrs:InProc |
| -1821.4 | 1 | swrs:member ?p2 ?n1. |
| -1787.5 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2118instance rdf:type swrs:Person. |
| -1814.8 | 1 | swrs:Organization rdf:type ?n1. |
| -1815.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id814instance rdf:type ?n1. |

| log factor | frequency | |
|---|---|---|
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id439instance rdf:type ?n1. |
| -1785.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id637instance rdf:type swrs |
| -1788.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id703instance rdf:type swrs |
| -1787.0 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2008instance rdf:type swrs:Person. |
| -1806.0 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id2008instance ?p1 swrs:Person. |
| -1819.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id804instance rdf:type ?n1. |
| -1803.3 | 1 | swrs:Proceedings ?p1 owl:Class. |
| -1807.0 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewExternerAutorOWL/id786instance ?p1 swrs:Pers |
| -1806.5 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance ?p1 swrs:Person. |
| -1787.5 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance rdf:type swrs:Person. |
| -1818.5 | 1 | http://www.aifb.uni-karlsruhe.de/Personen/viewPersonOWL/id48instance rdf:type ?n1. |
| -1787.3 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance rdf:type swrs:F |
| -1806.4 | 1 | http://www.aifb.uni-karlsruhe.de/Publikationen/viewPublikationOWL/id542instance ?p1 swrs:Public |

## Mutag, top 100 by log factor

| log factor | frequency | |
|---|---|---|
| 11178.4 | 5996 | ?n1 http://dl-learner.org/carcinogenesis_hasAtom ?n2. |
| 1014.6 | 1840 | ?n1 rdf:type http://dl-learner.org/carcinogenesis_Bond-7. |

| log factor | frequency | |
|---|---|---|
| 938.0 | 1850 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Bond-7.` |
| 577.6 | 1897 | `?n1 rdf:type ?n2.` |
| -1250.9 | 138 | `?n1 rdfs:subClassOf ?n2.` |
| -1422.9 | 320 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Ar_halide.` |
| -1593.5 | 319 | `?n1 http://dl-learner.org/carcinogenesis_charge ?n2.` |
| -1689.4 | 181 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Amine.` |
| -1707.3 | 173 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -1719.3 | 181 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Amine.` |
| -1737.1 | 173 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -1830.8 | 110 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Alcohol.` |
| -1859.3 | 110 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alcohol.` |
| -1865.4 | 142 | `?n1 rdf:type owl:Class.` |
| -1879.4 | 22 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Structure.` |
| -1886.3 | 19 | `?n1 rdfs:subClassOf http://dl-learner.org/carcinogenesis_Structure.` |
| -1894.6 | 142 | `?n1 ?p2 owl:Class.` |
| -1911.7 | 67 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Amino.` |
| -1928.9 | 50 | `http://dl-learner.org/carcinogenesis_d270 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -1938.7 | 67 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Amino.` |
| -1981.2 | 36 | `http://dl-learner.org/carcinogenesis_d219 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -1988.7 | 16 | `http://dl-learner.org/carcinogenesis_d84 http://dl-learner.org/carcinogenesis_hasStructure ?n1.` `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -1996.1 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp` `http://dl-learner.org/carcinogenesis_bond5500 http://dl-learner.org/carcinogenesis_inBond http:/` |
| -2000.2 | 1 | `http://dl-learner.org/carcinogenesis_Ester rdfs:subClassOf http://dl-learner.org/carcinogenesis` |

| log factor | frequency | |
|---|---|---|
| -2000.9 | 1 | http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp |
| -2001.3 | 1 | http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://d |
| -2002.9 | 1 | http://dl-learner.org/carcinogenesis_Phosphorus-60 rdf:type owl:Class.<br>http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp |
| -2003.0 | 1 | http://dl-learner.org/carcinogenesis_bond412 http://dl-learner.org/carcinogenesis_inBond http:// |
| -2003.0 | 1 | http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond http://d |
| -2003.0 | 1 | http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://d |
| -2003.0 | 1 | http://dl-learner.org/carcinogenesis_bond100 http://dl-learner.org/carcinogenesis_inBond http:// |
| -2003.0 | 1 | http://dl-learner.org/carcinogenesis_bond101 http://dl-learner.org/carcinogenesis_inBond http:// |
| -2003.4 | 1 | http://dl-learner.org/carcinogenesis_amino-3151 rdf:type http://dl-learner.org/carcinogenesis_Am |
| -2008.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-2154 rdf:type http://dl-learner.org/carcinoge<br>http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoge |
| -2008.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoge<br>http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene |
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoge |
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-318 rdf:type http://dl-learner.org/carcinogene |

| log factor | frequency | |
|---|---|---|
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_alcohol-1585 rdf:type http://dl-learner.org/carcinogenesis |
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_alcohol-2172 rdf:type http://dl-learner.org/carcinogenesis |
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_alcohol-2134 rdf:type http://dl-learner.org/carcinogenesis |
| -2009.1 | 1 | http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://dl<br>http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl |
| -2009.4 | 1 | http://dl-learner.org/carcinogenesis_amine-2182 rdf:type http://dl-learner.org/carcinogenesis_An |
| -2010.4 | 1 | http://dl-learner.org/carcinogenesis_Molybdenum rdf:type owl:Class. |
| -2010.4 | 1 | http://dl-learner.org/carcinogenesis_Carbon-22 rdf:type owl:Class. |
| -2011.7 | 1 | http://dl-learner.org/carcinogenesis_bond32 rdf:type http://dl-learner.org/carcinogenesis_Bond-<br>http://dl-learner.org/carcinogenesis_bond32 http://dl-learner.org/carcinogenesis_inBond http://dl |
| -2012.2 | 1 | http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl |
| -2013.0 | 1 | http://dl-learner.org/carcinogenesis_bond485 rdf:type http://dl-learner.org/carcinogenesis_Bond- |
| -2013.0 | 1 | http://dl-learner.org/carcinogenesis_bond1962 rdf:type http://dl-learner.org/carcinogenesis_Bond |
| -2013.0 | 1 | http://dl-learner.org/carcinogenesis_bond3442 rdf:type http://dl-learner.org/carcinogenesis_Bond |
| -2013.0 | 1 | http://dl-learner.org/carcinogenesis_bond2380 rdf:type http://dl-learner.org/carcinogenesis_Bond |
| -2013.0 | 1 | http://dl-learner.org/carcinogenesis_bond32 rdf:type http://dl-learner.org/carcinogenesis_Bond- |

| log factor | frequency | |
|---|---|---|
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond16 rdf:type http://dl-learner.org/carcinogenesis_Bond-` |
| -2014.7 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 rdf:type http://dl-learner.org/carcinogenesis_Bon` |
| -2017.6 | 1 | `http://dl-learner.org/carcinogenesis_Ester ?p1 http://dl-learner.org/carcinogenesis_Structure.` |
| -2018.3 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 ?p1 http://dl-learner.org/carcinogenesis_Phosphorus` |
| -2018.8 | 1 | `http://dl-learner.org/carcinogenesis_bond1012 ?p1 http://dl-learner.org/carcinogenesis_d135_23.` |
| -2019.5 | 25 | `http://dl-learner.org/carcinogenesis_d216 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond412 ?p1 http://dl-learner.org/carcinogenesis_d112_4.` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond95 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond99 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond101 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2020.8 | 1 | `http://dl-learner.org/carcinogenesis_amino-3218 ?p1 http://dl-learner.org/carcinogenesis_Amino.` |
| -2020.8 | 1 | `http://dl-learner.org/carcinogenesis_amino-3151 ?p1 http://dl-learner.org/carcinogenesis_Amino.` |
| -2020.9 | 1 | `http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p1 owl:Class.`<br>`http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp` |

| log factor | frequency | |
|---|---|---|
| -2022.4 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2154 ?p1 http://dl-learner.org/carcinogenesis.` |
| | | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis.` |
| | | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene` |
| -2025.9 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2154 ?p1 http://dl-learner.org/carcinogenesis.` |
| | | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis.` |
| -2026.4 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis.` |
| | | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-120 ?p1 http://dl-learner.org/carcinogenesis_A` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis.` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p1 http://dl-learner.org/carcinogenesis_A` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-980 ?p1 http://dl-learner.org/carcinogenesis_Alcoh` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1585 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2172 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-537 ?p1 http://dl-learner.org/carcinogenesis_Alcoh` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2026.6 | 1 | `http://dl-learner.org/carcinogenesis_bond99 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| | | `http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl` |

| log factor | frequency | |
| --- | --- | --- |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2182 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-939 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-1155 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-1260 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-946 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2275 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p1 owl:Class.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Ar_halide ?p1 owl:Class.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Alcohol ?p1 owl:Class.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Carbon-22 ?p1 owl:Class.` |
| -2030.2 | 4 | `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d102_2.` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond485 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond1962 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond4893 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |

| log factor | frequency | |
|---|---|---|
| -2031.0 | 2 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond ?n1.` `http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -2031.9 | 1 | `http://dl-learner.org/carcinogenesis_Di260 rdfs:subClassOf ?n1.` |
| -2032.1 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 ?p1 http://dl-learner.org/carcinogenesis_Bond-1.` |
| -2032.9 | 3 | `http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond http://` `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d102_2.` |
| -2033.6 | 1 | `http://dl-learner.org/carcinogenesis_Ester rdfs:subClassOf ?n1.` |
| -2034.1 | 1 | `http://dl-learner.org/carcinogenesis_Iodine-95 rdfs:subClassOf ?n1.` |
| -2034.1 | 1 | `http://dl-learner.org/carcinogenesis_Chlorine-93 rdfs:subClassOf ?n1.` |
| -2034.3 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 rdf:type ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond101 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond1012 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2036.7 | 2 | `http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2036.7 | 2 | `http://dl-learner.org/carcinogenesis_bond412 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2041.9 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type ?n1.` `http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type ?n1.` |
| -2042.0 | 2 | `http://dl-learner.org/carcinogenesis_bond4893 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2042.1 | 1 | `http://dl-learner.org/carcinogenesis_di10-3291 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2491 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2916 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-222 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-1445 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1069 rdf:type ?n1.` |
| -2042.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 rdf:type ?n1.` |
| -2042.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2634 rdf:type ?n1.` |
| -2043.8 | 1 | `http://dl-learner.org/carcinogenesis_Nitrogen-499 rdf:type ?n1.` |
| -2043.8 | 1 | `http://dl-learner.org/carcinogenesis_Phosphorus-60 rdf:type ?n1.` |
| -2043.8 | 1 | `http://dl-learner.org/carcinogenesis_Non_ar_6c_ring rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-1525 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-2912 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-3038 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-216 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-180 rdf:type ?n1.` |
| -2044.1 | 1 | `http://dl-learner.org/carcinogenesis_d243_16 http://dl-learner.org/carcinogenesis_charge ?n1.` |
| -2045.1 | 1 | `?n1 http://dl-learner.org/carcinogenesis_hasAtom http://dl-learner.org/carcinogenesis_d112_4.` |
| -2045.3 | 1 | `http://dl-learner.org/carcinogenesis_d82_26 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond1421 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond4108 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond7147 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond566 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond485 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond3448 rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond2380 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond32 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond662 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond5306 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond5197 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond6533 rdf:type ?n1.` |
| -2048.1 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 rdf:type ?n1.` |
| -2052.2 | 6 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Phosphorus-60.` |
| -2053.6 | 66 | `http://dl-learner.org/carcinogenesis_amino-3169 rdf:type http://dl-learner.org/carcinogenesis_Ar` |
| | | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Amino.` |
| -2056.6 | 2 | `http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p2 ?n1.` |
| -2059.4 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p2 ?n1.` |
| | | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p2 ?n1.` |
| -2059.7 | 2 | `http://dl-learner.org/carcinogenesis_d270_13 ?p2 ?n1.` |
| -2059.9 | 2 | `http://dl-learner.org/carcinogenesis_Non_ar_6c_ring ?p2 ?n1.` |
| -2059.9 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p2 ?n1.` |
| -2059.9 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2916 ?p2 ?n1.` |
| -2060.0 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 ?p2 ?n1.` |
| -2060.0 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1069 ?p2 ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 ?p2 ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2634 ?p2 ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-939 ?p2 ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-1260 ?p2 ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2275 ?p2 ?n1.` |
| -2061.0 | 2 | `http://dl-learner.org/carcinogenesis_Di51 ?p2 ?n1.` |
| -2061.0 | 2 | `http://dl-learner.org/carcinogenesis_Di260 ?p2 ?n1.` |
| -2061.3 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-180 ?p2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2062.7 | 2 | `http://dl-learner.org/carcinogenesis_Ester ?p2 ?n1.` |
| -2063.1 | 2 | `http://dl-learner.org/carcinogenesis_Chlorine-93 ?p2 ?n1.` |
| -2065.9 | 9 | `http://dl-learner.org/carcinogenesis_d104 http://dl-learner.org/carcinogenesis_hasStructure ?n1` |
| | | `?n1 rdf:type ?n2.` |
| -2071.1 | 2 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d135_23.` |
| -2071.4 | 5 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d112_4.` |
| -2071.9 | 5 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2073.9 | 3 | `http://dl-learner.org/carcinogenesis_bond1012 ?p2 ?n1.` |
| -2075.7 | 3 | `http://dl-learner.org/carcinogenesis_bond412 ?p2 ?n1.` |
| -2075.7 | 3 | `http://dl-learner.org/carcinogenesis_bond9012 ?p2 ?n1.` |
| -2077.4 | 2 | `http://dl-learner.org/carcinogenesis_d243_16 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond485 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond1962 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond4893 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond2380 ?p2 ?n1.` |
| -2086.2 | 3 | `?n1 rdf:type ?n2.` |
| | | `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d11_4.` |
| -2094.0 | 2 | `http://dl-learner.org/carcinogenesis_di10-3291 rdf:type ?n2.` |
| | | `?n2 ?p3 ?n1.` |
| -2094.6 | 541 | `?n1 ?p3 ?n2.` |
| -2114.7 | 92 | `?n1 http://dl-learner.org/carcinogenesis_inBond ?n2.` |
| -2139.2 | 4 | `?n1 ?p3 http://dl-learner.org/carcinogenesis_d11_4.` |
| | | `?n1 rdf:type ?n2.` |
| -2151.0 | 62 | `?n1 ?p4 http://dl-learner.org/carcinogenesis_d11_4.` |
| | | `?n1 ?p3 ?n2.` |
| -2743.8 | 126 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Bond-1.` |

**Mutag, top 100 by frequency**

| log factor | frequency | |
|---|---|---|
| 11178.4 | 5996 | `?n1 http://dl-learner.org/carcinogenesis_hasAtom ?n2.` |
| 577.6 | 1897 | `?n1 rdf:type ?n2.` |
| 938.0 | 1850 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Bond-7.` |
| 1014.6 | 1840 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2094.6 | 541 | `?n1 ?p3 ?n2.` |
| -1422.9 | 320 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Ar_halide.` |
| -1593.5 | 319 | `?n1 http://dl-learner.org/carcinogenesis_charge ?n2.` |
| -1719.3 | 181 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Amine.` |
| -1689.4 | 181 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Amine.` |
| -1707.3 | 173 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -1737.1 | 173 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -1894.6 | 142 | `?n1 ?p2 owl:Class.` |
| -1865.4 | 142 | `?n1 rdf:type owl:Class.` |
| -1250.9 | 138 | `?n1 rdfs:subClassOf ?n2.` |
| -2743.8 | 126 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Bond-1.` |
| -1859.3 | 110 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alcohol.` |
| -1830.8 | 110 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Alcohol.` |
| -2114.7 | 92 | `?n1 http://dl-learner.org/carcinogenesis_inBond ?n2.` |
| -1911.7 | 67 | `?n1 rdf:type http://dl-learner.org/carcinogenesis_Amino.` |
| -1938.7 | 67 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Amino.` |
| -2053.6 | 66 | `http://dl-learner.org/carcinogenesis_amino-3169 rdf:type http://dl-learner.org/carcinogenesis_Am`<br>`?n1 ?p2 http://dl-learner.org/carcinogenesis_Amino.` |
| -2151.0 | 62 | `?n1 ?p4 http://dl-learner.org/carcinogenesis_d11_4.`<br>`?n1 ?p3 ?n2.` |

| log factor | frequency | |
| --- | --- | --- |
| -1928.9 | 50 | `http://dl-learner.org/carcinogenesis_d270 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -1981.2 | 36 | `http://dl-learner.org/carcinogenesis_d219 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -2019.5 | 25 | `http://dl-learner.org/carcinogenesis_d216 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -1879.4 | 22 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Structure.` |
| -1886.3 | 19 | `?n1 rdfs:subClassOf http://dl-learner.org/carcinogenesis_Structure.` |
| -1988.7 | 16 | `http://dl-learner.org/carcinogenesis_d84 http://dl-learner.org/carcinogenesis_hasStructure ?n1.` `?n1 ?p2 http://dl-learner.org/carcinogenesis_Alkyl_halide.` |
| -2065.9 | 9 | `http://dl-learner.org/carcinogenesis_d104 http://dl-learner.org/carcinogenesis_hasStructure ?n1` `?n1 rdf:type ?n2.` |
| -2052.2 | 6 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_Phosphorus-60.` |
| -2071.4 | 5 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d112_4.` |
| -2071.9 | 5 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2030.2 | 4 | `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d102_2.` |
| -2139.2 | 4 | `?n1 ?p3 http://dl-learner.org/carcinogenesis_d11_4.` `?n1 rdf:type ?n2.` |
| -2075.7 | 3 | `http://dl-learner.org/carcinogenesis_bond412 ?p2 ?n1.` |
| -2032.9 | 3 | `http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond http://d` `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d102_2.` |
| -2073.9 | 3 | `http://dl-learner.org/carcinogenesis_bond1012 ?p2 ?n1.` |
| -2086.2 | 3 | `?n1 rdf:type ?n2.` `?n1 http://dl-learner.org/carcinogenesis_inBond http://dl-learner.org/carcinogenesis_d11_4.` |
| -2075.7 | 3 | `http://dl-learner.org/carcinogenesis_bond9012 ?p2 ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond485 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond1962 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond4893 ?p2 ?n1.` |
| -2079.2 | 3 | `http://dl-learner.org/carcinogenesis_bond2380 ?p2 ?n1.` |
| -2036.7 | 2 | `http://dl-learner.org/carcinogenesis_bond412 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2036.7 | 2 | `http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2031.0 | 2 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond ?n1.`<br>`http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond101 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2035.0 | 2 | `http://dl-learner.org/carcinogenesis_bond1012 http://dl-learner.org/carcinogenesis_inBond ?n1.` |
| -2071.1 | 2 | `?n1 ?p2 http://dl-learner.org/carcinogenesis_d135_23.` |
| -2062.7 | 2 | `http://dl-learner.org/carcinogenesis_Ester ?p2 ?n1.` |
| -2063.1 | 2 | `http://dl-learner.org/carcinogenesis_Chlorine-93 ?p2 ?n1.` |
| -2061.0 | 2 | `http://dl-learner.org/carcinogenesis_Di51 ?p2 ?n1.` |
| -2056.6 | 2 | `http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p2 ?n1.` |
| -2059.7 | 2 | `http://dl-learner.org/carcinogenesis_d270_13 ?p2 ?n1.` |
| -2061.0 | 2 | `http://dl-learner.org/carcinogenesis_Di260 ?p2 ?n1.` |
| -2077.4 | 2 | `http://dl-learner.org/carcinogenesis_d243_16 ?p2 ?n1.` |
| -2042.0 | 2 | `http://dl-learner.org/carcinogenesis_bond4893 http://dl-learner.org/carcinogenesis_inBond ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2094.0 | 2 | `http://dl-learner.org/carcinogenesis_di10-3291 rdf:type ?n2.` |
| | | `?n2 ?p3 ?n1.` |
| -2059.9 | 2 | `http://dl-learner.org/carcinogenesis_Non_ar_6c_ring ?p2 ?n1.` |
| -2045.1 | 1 | `?n1 http://dl-learner.org/carcinogenesis_hasAtom http://dl-learner.org/carcinogenesis_d112_4.` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond412 ?p1 http://dl-learner.org/carcinogenesis_d112_4.` |
| -2003.0 | 1 | `http://dl-learner.org/carcinogenesis_bond412 http://dl-learner.org/carcinogenesis_inBond http:/` |
| -2003.0 | 1 | `http://dl-learner.org/carcinogenesis_bond100 http://dl-learner.org/carcinogenesis_inBond http:/` |
| -2003.0 | 1 | `http://dl-learner.org/carcinogenesis_bond95 http://dl-learner.org/carcinogenesis_inBond http://` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond95 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2003.0 | 1 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond99 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2001.3 | 1 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://` |
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_bond99 http://dl-learner.org/carcinogenesis_inBond http://` |
| | | `http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl` |
| -2012.2 | 1 | `http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl` |
| -2026.6 | 1 | `http://dl-learner.org/carcinogenesis_bond99 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| | | `http://dl-learner.org/carcinogenesis_d102 http://dl-learner.org/carcinogenesis_hasAtom http://dl` |

| log factor | frequency | |
|---|---|---|
| -2003.0 | 1 | `http://dl-learner.org/carcinogenesis_bond101 http://dl-learner.org/carcinogenesis_inBond http:/` |
| -2020.5 | 1 | `http://dl-learner.org/carcinogenesis_bond101 ?p1 http://dl-learner.org/carcinogenesis_d102_2.` |
| -2018.8 | 1 | `http://dl-learner.org/carcinogenesis_bond1012 ?p1 http://dl-learner.org/carcinogenesis_d135_23.` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-980 ?p1 http://dl-learner.org/carcinogenesis_Alcoh` |
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1585 rdf:type http://dl-learner.org/carcinogenesis` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1585 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond1421 rdf:type ?n1.` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-120 ?p1 http://dl-learner.org/carcinogenesis_A` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond4108 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond7147 rdf:type ?n1.` |
| -2017.6 | 1 | `http://dl-learner.org/carcinogenesis_Ester ?p1 http://dl-learner.org/carcinogenesis_Structure.` |
| -2000.2 | 1 | `http://dl-learner.org/carcinogenesis_Ester rdfs:subClassOf http://dl-learner.org/carcinogenesis` |
| -2033.6 | 1 | `http://dl-learner.org/carcinogenesis_Ester rdfs:subClassOf ?n1.` |
| -2034.1 | 1 | `http://dl-learner.org/carcinogenesis_Iodine-95 rdfs:subClassOf ?n1.` |
| -2034.1 | 1 | `http://dl-learner.org/carcinogenesis_Chlorine-93 rdfs:subClassOf ?n1.` |
| -2045.3 | 1 | `http://dl-learner.org/carcinogenesis_d82_26 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-1525 rdf:type ?n1.` |
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2172 rdf:type http://dl-learner.org/carcinogenesis` |

| log factor | frequency | |
| --- | --- | --- |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2172 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2043.8 | 1 | `http://dl-learner.org/carcinogenesis_Nitrogen-499 rdf:type ?n1.` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-537 ?p1 http://dl-learner.org/carcinogenesis_Alcoh` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 ?p1 http://dl-learner.org/carcinogenesis_Alcol` |
| -2060.0 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 ?p2 ?n1.` |
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 rdf:type http://dl-learner.org/carcinogenesis` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-2134 rdf:type ?n1.` |
| -2042.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 rdf:type ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 ?p2 ?n1.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2759 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2182 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2009.4 | 1 | `http://dl-learner.org/carcinogenesis_amine-2182 rdf:type http://dl-learner.org/carcinogenesis_Ar` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond566 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-2912 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type ?n1.` |
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoger` |
| -2026.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis.` |

| log factor | frequency | |
| --- | --- | --- |
| -2008.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-2154 rdf:type http://dl-learner.org/carcinoge |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoge |
| -2025.9 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-2154 ?p1 http://dl-learner.org/carcinogenesis. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis. |
| -2022.4 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-2154 ?p1 http://dl-learner.org/carcinogenesis. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene |
| -2026.4 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p1 http://dl-learner.org/carcinogenesis. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene |
| -2008.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type http://dl-learner.org/carcinoge |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type http://dl-learner.org/carcinogene |
| -2041.9 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 rdf:type ?n1. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type ?n1. |
| -2059.4 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-3065 ?p2 ?n1. |
| | | http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p2 ?n1. |
| -2059.9 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p2 ?n1. |
| -2026.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-320 ?p1 http://dl-learner.org/carcinogenesis_A |
| -2042.5 | 1 | http://dl-learner.org/carcinogenesis_alkyl_halide-320 rdf:type ?n1. |
| -2043.8 | 1 | http://dl-learner.org/carcinogenesis_Phosphorus-60 rdf:type ?n1. |
| -2027.8 | 1 | http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p1 owl:Class. |
| -2020.9 | 1 | http://dl-learner.org/carcinogenesis_Phosphorus-60 ?p1 owl:Class. |
| | | http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp |
| -2002.9 | 1 | http://dl-learner.org/carcinogenesis_Phosphorus-60 rdf:type owl:Class. |
| | | http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp |

| log factor | frequency | |
|---|---|---|
| -2000.9 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp` |
| -1996.1 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 rdf:type http://dl-learner.org/carcinogenesis_Phosp` |
| | | `http://dl-learner.org/carcinogenesis_bond5500 http://dl-learner.org/carcinogenesis_inBond http:/` |
| -2018.3 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 ?p1 http://dl-learner.org/carcinogenesis_Phosphorus` |
| -2034.3 | 1 | `http://dl-learner.org/carcinogenesis_d270_13 rdf:type ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2634 ?p2 ?n1.` |
| -2042.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2634 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond6533 rdf:type ?n1.` |
| -2048.1 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 rdf:type ?n1.` |
| -2014.7 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 rdf:type http://dl-learner.org/carcinogenesis_Bond` |
| -2032.1 | 1 | `http://dl-learner.org/carcinogenesis_bond9012 ?p1 http://dl-learner.org/carcinogenesis_Bond-1.` |
| -2010.4 | 1 | `http://dl-learner.org/carcinogenesis_Molybdenum rdf:type owl:Class.` |
| -2031.9 | 1 | `http://dl-learner.org/carcinogenesis_Di260 rdfs:subClassOf ?n1.` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond485 rdf:type http://dl-learner.org/carcinogenesis_Bond-` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond485 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond485 rdf:type ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-939 ?p2 ?n1.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-939 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond3448 rdf:type ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2491 rdf:type ?n1.` |

| log factor | frequency | |
| --- | --- | --- |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-3038 rdf:type ?n1.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-1155 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-1260 ?p2 ?n1.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-1260 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-946 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Ar_halide ?p1 owl:Class.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Alcohol ?p1 owl:Class.` |
| -2027.8 | 1 | `http://dl-learner.org/carcinogenesis_Carbon-22 ?p1 owl:Class.` |
| -2010.4 | 1 | `http://dl-learner.org/carcinogenesis_Carbon-22 rdf:type owl:Class.` |
| -2044.1 | 1 | `http://dl-learner.org/carcinogenesis_d243_16 http://dl-learner.org/carcinogenesis_charge ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-216 rdf:type ?n1.` |
| -2059.9 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2916 ?p2 ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-2916 rdf:type ?n1.` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond1962 rdf:type http://dl-learner.org/carcinogenesis_Bond` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond1962 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond3442 rdf:type http://dl-learner.org/carcinogenesis_Bond` |
| -2030.4 | 1 | `http://dl-learner.org/carcinogenesis_bond4893 ?p1 http://dl-learner.org/carcinogenesis_Bond-7.` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond2380 rdf:type http://dl-learner.org/carcinogenesis_Bond` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond2380 rdf:type ?n1.` |

| log factor | frequency | |
|---|---|---|
| -2009.1 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-318 rdf:type http://dl-learner.org/carcinogene` |
| -2042.1 | 1 | `http://dl-learner.org/carcinogenesis_di10-3291 rdf:type ?n1.` |
| -2043.9 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-180 rdf:type ?n1.` |
| -2061.3 | 1 | `http://dl-learner.org/carcinogenesis_ar_halide-180 ?p2 ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-222 rdf:type ?n1.` |
| -2043.8 | 1 | `http://dl-learner.org/carcinogenesis_Non_ar_6c_ring rdf:type ?n1.` |
| -2060.0 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1069 ?p2 ?n1.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alcohol-1069 rdf:type ?n1.` |
| -2060.3 | 1 | `http://dl-learner.org/carcinogenesis_amine-2275 ?p2 ?n1.` |
| -2026.8 | 1 | `http://dl-learner.org/carcinogenesis_amine-2275 ?p1 http://dl-learner.org/carcinogenesis_Amine.` |
| -2042.5 | 1 | `http://dl-learner.org/carcinogenesis_alkyl_halide-1445 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond32 rdf:type ?n1.` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond32 rdf:type http://dl-learner.org/carcinogenesis_Bond-` |
| -2011.7 | 1 | `http://dl-learner.org/carcinogenesis_bond32 rdf:type http://dl-learner.org/carcinogenesis_Bond-` |
| | | `http://dl-learner.org/carcinogenesis_bond32 http://dl-learner.org/carcinogenesis_inBond http://` |
| -2013.0 | 1 | `http://dl-learner.org/carcinogenesis_bond16 rdf:type http://dl-learner.org/carcinogenesis_Bond-` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond662 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond5306 rdf:type ?n1.` |
| -2046.4 | 1 | `http://dl-learner.org/carcinogenesis_bond5197 rdf:type ?n1.` |
| -2020.8 | 1 | `http://dl-learner.org/carcinogenesis_amino-3218 ?p1 http://dl-learner.org/carcinogenesis_Amino.` |
| -2020.8 | 1 | `http://dl-learner.org/carcinogenesis_amino-3151 ?p1 http://dl-learner.org/carcinogenesis_Amino.` |

| log factor | frequency | |
| --- | --- | --- |
| -2003.4 | 1 | `http://dl-learner.org/carcinogenesis_amino-3151 rdf:type http://dl-learner.org/carcinogenesis_A` |