



TAPValidator

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Origin

- Need for a node validation tool, both for node and client developers
- Java node output validator (Jan. 2011)
- TAPValidator Versions
 - 11.05: xsams 0.2, network support
 - 11.12: xsams 0.3, updated for standards
 - 12.07: xsams 1.0, registry support, gui improvements

Latest version

VAMDC-TAP service validation GUI

File Edit Settings Help

SELECT ALL WHERE MoleculeStoichiometricFormula = "H4Si"

Preview Query Stop

```
1546 <FitParameters functionRef="Fumist-1">
1547 <FitArgument name="T" units="K">
1548 <Description>Temperature</Description>
1549 <LowerLimit>10.0</LowerLimit>
1550 <UpperLimit>41000.0</UpperLimit>
1551 </FitArgument>
1552 <FitParameter name="alpha">
1553 <Value units="cm3/s">1.96e-10</Value>
1554 </FitParameter>
1555 <FitParameter name="beta">
1556 <Value units="unitless">0.0</Value>
1557 </FitParameter>
1558 <FitParameter name="gamma">
1559 <Value units="K">0.0</Value>
1560 </FitParameter>
1561 </FitParameters>
1562 <Accuracy>within 50%</Accuracy>
1563 </FitData>
1564 </DataSet>
1565 </DataSets>
1566 </CollisionalTransition>
1567 <CollisionalTransition id="Pumist-C10477">
1568 <ProcessClass>
1569 <UserDefinition>Ion-neutral</UserDefinition>
1570 </ProcessClass>
1571 <Reactant>
1572 <SpeciesRef>Xumist-66</SpeciesRef>
1573 </Reactant>
1574 <Reactant>
1575 <SpeciesRef>Xumist-112</SpeciesRef>
1576 </Reactant>
1577 <Product>
1578 <SpeciesRef>Xumist-79</SpeciesRef>
1579 </Product>
1580 <Product>
1581 <SpeciesRef>Xumist-97</SpeciesRef>
```

1 InchiKey
2 MoleculeInChiKey
3 MoleculeStoichiometricFormula
4 VAMDCSpeciesID
5 MoleculeChemicalName
6 MoleculeInChi

Locator panel

<input type="radio"/> Atom	1 of 7	->	<input type="radio"/> State	0 of 0	->
<input type="radio"/> Molecule	1 of 28	->	<input type="radio"/> State	0 of 0	->
<input type="radio"/> Particle	1 of 1	->			
<input type="radio"/> Solid	0 of 0	->			
<input type="radio"/> Radiative	0 of 0	->			
<input type="radio"/> NonRadiative	0 of 0	->			
<input type="radio"/> Collision	1 of 21	->			
<input type="radio"/> AbsorptionCS	0 of 0	->			
<input type="radio"/> Source	1 of 9	->			
<input type="radio"/> Method	1 of 4	->			
<input checked="" type="radio"/> Function	1 of 4	->			
<input type="radio"/> Environment	0 of 0	->			

28 1472:15 Invalid content was found starting with element 'Accuracy'.
29 1499:13 Invalid content was found starting with element 'SourceRef'.
30 1517:15 Invalid content was found starting with element 'Accuracy'.
31 1544:13 Invalid content was found starting with element 'SourceRef'.
32 1562:15 Invalid content was found starting with element 'Accuracy'.
33 1589:13 Invalid content was found starting with element 'SourceRef'.

File size: 65114; Lines count: 1794; Errors: 42; Sources: 9; States: 0; Collisions: 21; Transitions: 0;

Log console

```
Performing query SELECT ALL WHERE MoleculeStoichiometricFormula = "H4Si";
WARNING: node doesn't seem to support transfer compression!
Loaded document, 1794 lines.
File size: 65114; Lines count: 1794; Errors: 42; Sources: 9; States: 0; Collisions: 21; Transitions: 0;
```

Features:

- Graphical mode
 - Network operation
 - File validation
 - Java Node Software plugin testing
 - VAMDC-TAP Node quality assurance
- Command-line mode
 - Automated node validation

Standards compliance checklist

- XSAMS Validation
- VAMDC-TAP protocol features check
 - “No data” response
 - “Select species” query
 - Gzip transfer compression
 - Data quantity estimation (portal preview functionality)
 - Query Keywords and Sample Queries validation

Architecture

