

ODYSSEY Molecular Explorer

Release 5.4.2

Scientifically Sound Modeling for Learners and Teachers of Chemistry

Scientific Content

- More than 200 *Molecular Labs* for various teaching environments, including new labs for *The States of Matter* and *Intermolecular Forces* (mirrored as iOS apps).
- Recently introduced labs (all mirrored as iOS apps) include *Common Substances*, *Water at the Molecular Level*, *Atomic Orbitals*, *Chemical Elements*, *Ionic Bonding*, *Electron Sharing*, *Polar Bonds and Molecules*, *VSEPR Theory*, *Multiple Bonds and Resonance*, *Basic Crystal Lattices*, *Ionic Solids*, *Crystal Surfaces*, and *Functional Groups*.
- Spanish Language translation of many labs.
- More than 100 *Applied Chemistry* topics and more than 1,000 *Molecular Stockroom* models.

Molecular Modeling Support for College-Level Textbook

- Numerous activities to accompany *Chemistry: Human Activity, Chemical Reactivity*, Second Edition by Mahaffy, Tasker, Bucat, Kotz, Weaver, Treichel, and McMurry (Nelson Education, 2015).
- Canadian Edition: 200 Activities; International Edition: 232 Activities.

Eight Levels of Content Display (Switch to another setting at any time via the *Preferences* dialog)

- *My Favorites* (if declared)
- *Introduction to Chemistry*
- *High School Chemistry*
- *AP Chemistry*
- *College Chemistry*
- *Textbook/Canadian Edition*
- *Textbook/International Edition*
- *Materia en movimiento* (in Spanish)

Table of Contents Editable and Customizable

- Use the *Edit* option to remove any undesired topic / add any topic from the master list for all content levels.
- Restore the program to its original state with *Full Reset*.
- Create your personalized table of contents with the *My Favorites* setting.
- Export the *My Favorites* list from Instructor's Edition to Student Edition (*Favorites.odyssettings* file).

Support for Windows 10 and macOS 10.12 Sierra

- Minimum requirement: *Windows Vista* or *OS X 10.8 Mountain Lion*.
- Pinch gesture on Macintosh trackpad no longer causes molecular rotation freeze.
- Protocol no longer garbled in States of Matter/2D lab.
- Energetic information available again for Energetics of Covalent Bonding lab.
- Lone pairs option no longer missing for some models of VSEPR lab.
- Lighting problem fixed in Visualization of Lone Pairs lab
- Other bug fixes, formatting changes, and improvements.

Instructor's Edition Features (not included in Student Edition)

- Answer Key.
- List of Misconceptions for each molecular lab.
- Customization of questions (and creation of new labs if Enable Authoring of New Labs option is set).
- Saving of complete molecular labs (can be hyperlinked).
- Alignment with Next Generation Science Standards* (applicable to High School Chemistry setting).
- Alignment with AP Chemistry Curriculum** (applicable to AP Chemistry setting).

*Next Generation Science Standards (NGSS) is a registered trademark of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards was involved in the production of, and does not endorse, this product.

**AP® is a trademark registered and/or owned by the College Board, which was not involved in the production of, and does not endorse, this product.

College Chemistry setting (neglecting any customization): *Numbering of the Molecular Labs*

<i>Old</i>	<i>New</i>												
5.3.1	5.4.0			34	same	70	same	106	→	105	142	→	141
				35	same	71	same	107	→	106	143	→	142
				36	same	72	same	108	→	107	144	→	143
1	same			37	same	73	same	109	→	108	145	→	144
2	same			38	same	74	same	110	→	109	146	→	145
3	→ 4			39	same	75	same	111	→	110	147	→	146
4	→ Edit*			40	same	76	same	112	→	111	148	→	147
5	same			41	same	77	same	113	→	112	149	→	148
6	same			42	same	78	same	114	→	113	150	→	149
7	same			43	same	79	same	115	→	114	151	→	150
8	same			44	same	80	same	116	→	115	152	→	151
9	same			45	same	81	same	117	→	116	153	→	152
10	same			46	same	82	→ Edit*	118	→	117	154	→	153
11	same			47	same	83	→ 82	119	→	118	155	→	154
12	same			48	same	84	→ 83	120	→	119	156	→	155
13	same			49	same	85	→ 84	121	→	120	157	→	156
14	same			50	same	86	→ 85	122	→	121	158	→	157
15	same			51	same	87	→ 86	123	→	122	159	→	158
16	same			52	same	88	→ Edit*	124	→	123	160	→	159
17	same			53	same	89	→ 88	125	→	124	161	→	160
18	same			54	same	90	→ 89	126	→	125	162	→	161
19	same			55	same	91	→ 90	127	→	126	163	→	162
20	same			56	same	92	→ 91	128	→	127	164	→	163
21	same			57	same	93	→ 92	129	→	128	165	→	164
22	same			58	same	94	→ 93	130	→	129	166	→	165
23	same			59	same	95	→ 94	131	→	130	167	→	166
24	same			60	same	96	→ 95	132	→	131	168	→	167
25	same			61	same	97	→ 96	133	→	132	169	→	168
26	same			62	same	98	→ 97	134	→	133	170	→	169
27	same			63	same	99	→ 98	135	→	134	171	→	170
28	same			64	same	100	→ 99	136	→	135	172	→	171
29	same			65	same	101	→ 100	137	→	136	173	→	172
30	same			66	same	102	→ 101	138	→	137	174	→	173
31	same			67	same	103	→ 102	139	→	138	175	→	174
32	same			68	same	104	→ 103	140	→	139	176	→	175
33	same			69	same	105	→ 104	141	→	140			

* Lab available by invoking *Edit List*