ChemAxon

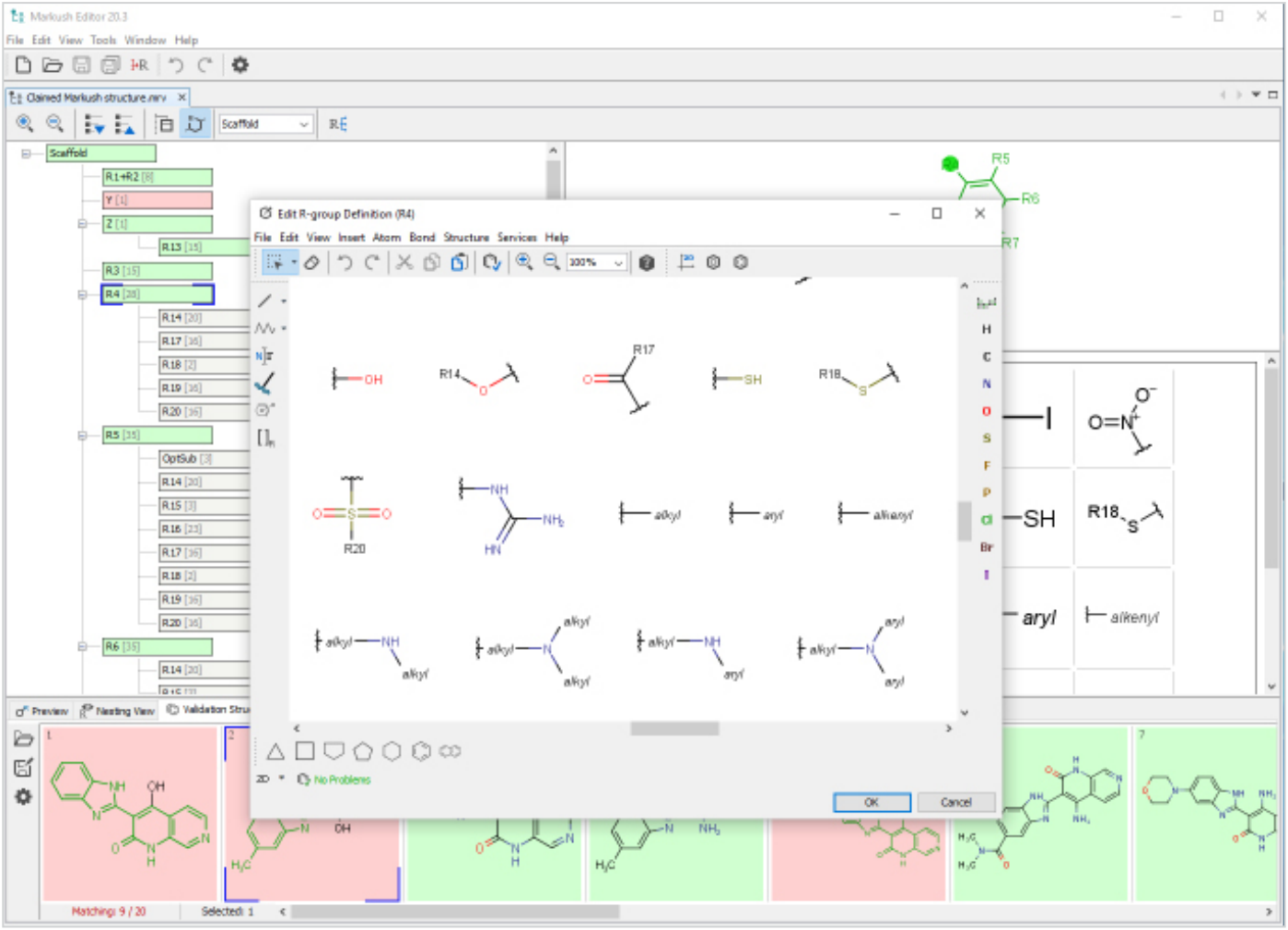
Markush Editor: Smart assistant for patent claim drafting and Markush analysis

Creating a patent claim that covers all of the desired compounds, without any overlap with prior-art documents, is a challenging task and a huge responsibility. Markush Editor assists you in all the steps of the drafting process, saves a lot of time and effort, and helps you to create strong, high-quality claims.

Computer-aided design systems in the past decades revolutionized architects' and engineers' work. These systems solve the most tedious tasks automatically and help to focus on the real essence of these professions. The Markush Editor is based on this concept to help IP professionals in creating chemical patents with complex Markush claims.

From a list of compounds, you can automatically generate an initial Markush structure. All generalization and modification can be done in an intuitive editor using the clear and easy understandable hierarchical R-group representation. During manual modifications, the automatic analysis identifies any mistakes or inconsistencies, and gives instant feedback about the

coverage of your Markush structure. Furthermore, exporting to claim text format saves hours of time by automatic generation of the backbone of your claims and avoids any mistakes in R-group definitions. Markush Editor features exclusive and efficient tools for all Markush-related tasks.

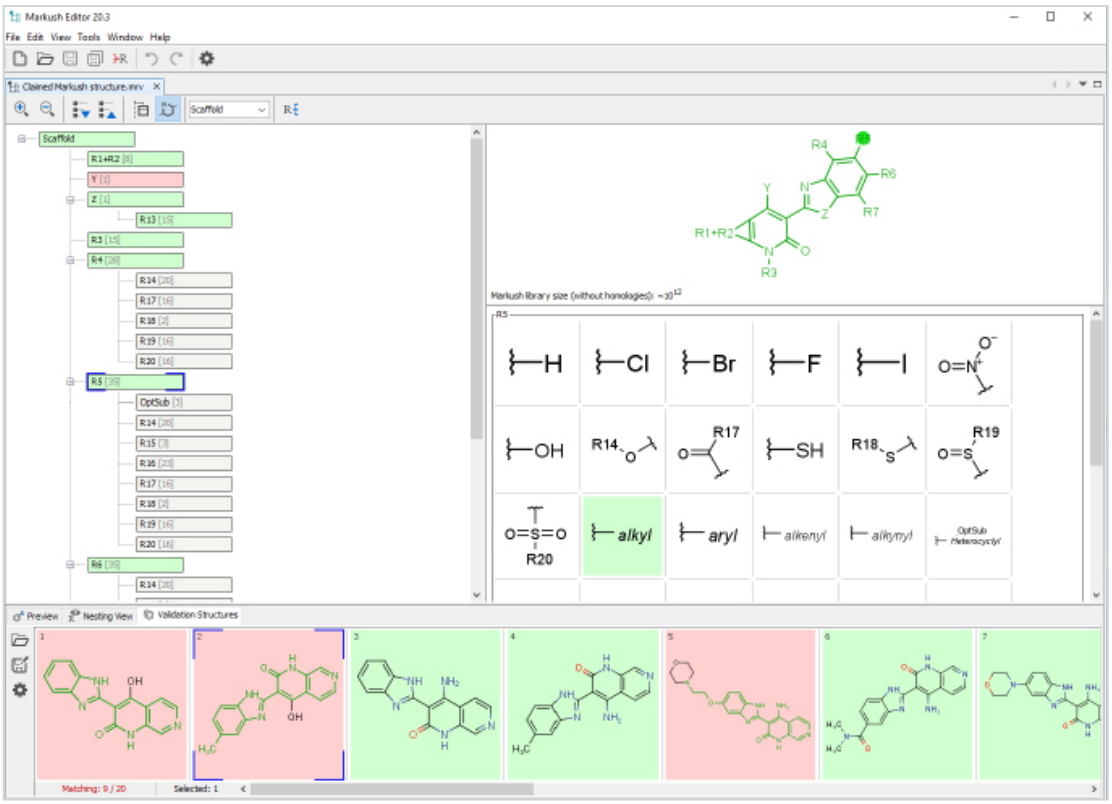


Composing Markush structures

Creating a Markush structure based on a list of compounds is the first step in your Markush claim drafting process. Markush Editor can import compound lists from any common formats including a list of IUPAC names, SMILES or MOL files. Markush Editor can find the optimal scaffold and generate all R-group definitions automatically. Even for hundreds of structures, the automatic generation takes only seconds. Various Markush features and the main parameters of the generation process can easily be configured according to your requirements or preference.

Hierarchic R-group representation

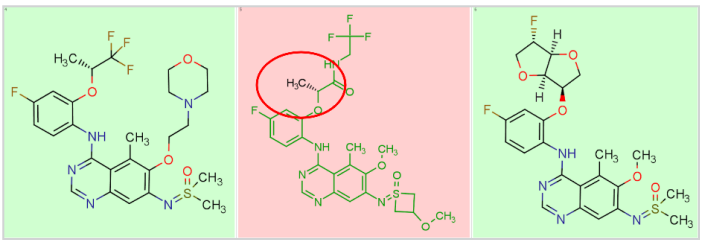
The Markush Editor offers a unique, hierarchical “tree-like” visualization of R-group relationships in Markush structures, making navigating through R-groups and understanding a Markush structure much easier. All the nodes of the Markush “tree” are editable, while ensuring that any



modification is intuitive and safe.

Interactive Markush analysis

During the generalization of your Markush structure, it is essential to know whether your compounds are covered by the Markush structure or not. To achieve this, lists of molecules can be loaded into Markush Editor, and the considered Markush structure can be continuously validated against these compounds. This analysis follows all modifications, so the editor will show real-time feedback about the matching of the compounds and the Markush structure. An advanced visualization makes it straight-



forward to see the matching elements, and also to find the non-matching parts, both in a compound and the Markush structure. Any logical errors, like missing R-group definitions or circular references, are also highlighted.

Generating Markush claims text

At the end of the day, you want to see your claim in the form of a scaffold image followed by the text description of your R-groups. Markush editor can generate this document with the R-group definition lists, and helps to avoid any manual errors. Instead of the time-consuming and error-prone task of listing all relevant substituents correctly, you can focus on the perfect legal wording of your claims.