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Subject: Aligning molecules to a common substructure  
Posted by [sbembenek18](#) on Sat, 05 Oct 2019 01:05:26 GMT  
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Is it possible to align all the molecules to a common substructure?

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Subject: Re: Aligning molecules to a common substructure  
Posted by [nbehrnd](#) on Sun, 06 Oct 2019 22:02:30 GMT  
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Please indicate if I'm wrong, but I understand your case like aiming to sort molecules featuring the same core substructure in groups together. If so, I suggest to try Chemistry -> Analyse Scaffolds -> Murcko scaffold. This will add a new column which equally allows sorting of the data set, e.g. to alter a sort by structure (here, the first column):

by a sorting according to the Murcko scaffold (here the third column):

As usual, the header of the column (e.g., the third one) may be renamed to your needs. Note, the manual includes an illustrated definition about different scaffold criteria available to you ( <http://www.openmolecules.org/help/chemistry.html#ScaffoldAnalysis>).



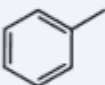
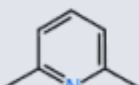
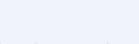
Norwid

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
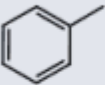

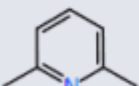
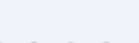
## File Attachments

1) [sort\\_structure.png](#), downloaded 1132 times

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Table		
	Structure	Total Molweight
1		78.1136
2		79.1017
3		92.1405
4		107.155
5		128.258

2) [sort\\_MurckoScaffold.png](#), downloaded 1178 times

Table		
	Structure	Total Molweight
1		78.1136
2		92.1405
3		79.1017
4		107.155
5		128.258

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Subject: Re: Aligning molecules to a common substructure

Posted by [thomas](#) on Wed, 09 Oct 2019 21:17:38 GMT

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You can generate new atom coordinates with:

"Chemistry -> Generate 2D Atom Coordinates"

Then check

"Automatically detect scaffolds and unify their orientation"  
and select a scaffold detection method: "most central" should be fine

When clicking OK, DataWarrior will rearrange your 2D-structures such that the most central ring system, where multiple molecule share the same scaffold, this scaffold is always drawn the same way.

For more flexibility, you may provide scaffolds with defined coordinates in the same dialog.

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Subject: Re: Aligning molecules to a common substructure  
Posted by [sbembenek18](#) on Fri, 11 Oct 2019 16:48:00 GMT  
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thanks!

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