

Dortmund Data Bank Explorer Version

Accessing NanoORC Data



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Software & Separation
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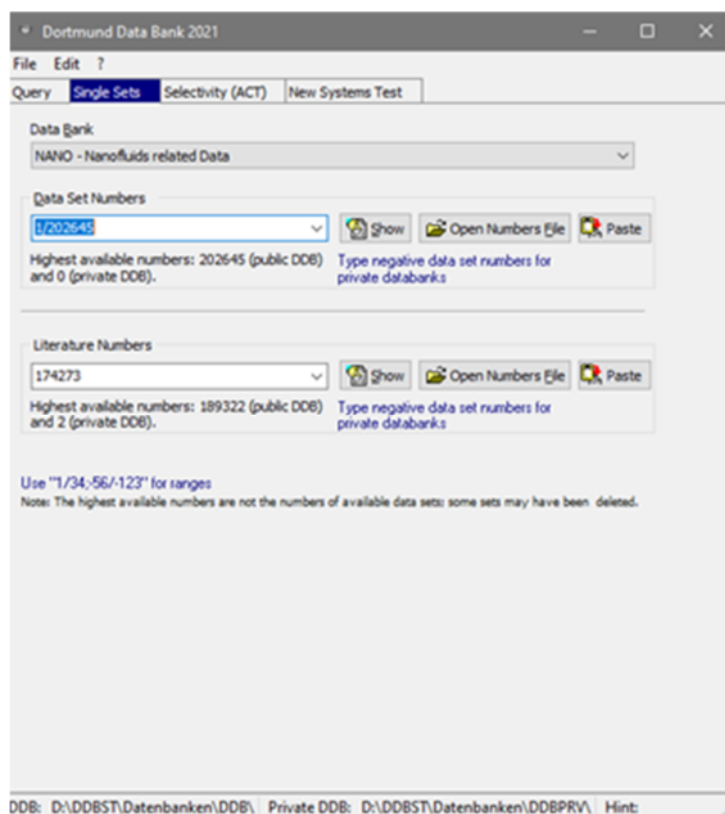
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How to access the NanoORC Data

There are several possibilities to access the NanoORC data.

1. By performing a complete search via the program “Dortmund Data Bank” like shown on the screenshot below:

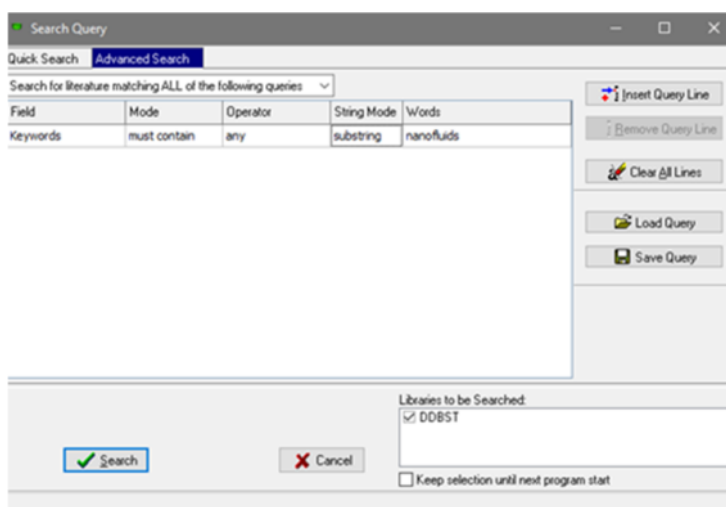


2. All related components (currently 18) are tagged with the keyword “nanofluid”. This allows a search via the component-selection dialog:

The screenshot shows the 'Component Selection 2021' dialog box. The search term 'nanofluid' is entered in the search field. The search type is set to 'Search Complete Database'. The search results are displayed in a table with 19 components.

Number	Type	Loc.	Name	Formula	CAS-RN	Mol.Weight
3299	C	DDB	Titanium dioxide	O2Ti	13463-67-7	79.879
4496	C	DDB	Aluminum oxide	Al2O3	1344-28-1	101.961
4556	C	DDB	Magnesium oxide	MgO	1309-48-4	40.304
4558	C	DDB	Zinc oxide	OZn	1314-13-2	81.389
4769	C	DDB	Silver	Ag	7440-22-4	107.868
6476	C	DDB	Silicon dioxide	O2Si	14808-60-7	60.084
7662	C	DDB	Titanium	Ti	7440-32-6	47.880
9280	C	DDB	Cerium oxide	CeO2	1306-38-3	172.114
17382	C	DDB	Cobalt oxide	Co3O4	1308-06-1	240.797
18285	C	DDB	Copper Oxide	CuO	1317-38-0	79.545

- Besides the components, also the references have been tagged. Opening the literature management program “LEAR” or using the “Reference/s Selection” form the DDB main program and doing an “Advanced Search” as follows:



will result in a literature list containing the Keyword “nanofluids”:

Number	Title	Authors	Publication Year	Pages	Keywords	Volume	Issue	Journal
141604	Characterization and measurements of thermal conductivity, density and rheological properties of zinc oxide nanoparticles dispersed in (ethane-1,2-diol + water) mixture	Cabaleiro D.; Pastoriza-Gallego M.J.; Pintero M.M.; Lugo L.	2013	405 - 415	Nanofluids		58	J.Chem
141745	Transport and thermal properties of quaternary phosphonium ionic liquids and ionanofluids	Ferreira A.G.M.; Simoes P.N.; Ferreira A.F.; Fonseca M.A.; Oliveira M.S.A.; Trino A.S.M.	2013	80 - 92	Nanofluids; pure compound data		64	J.Chem
145102	Experimental Measurements of Thermophysical Properties of Al2O3- and TiO2-Ethylene Glycol Nanofluids	Longo G.A.; Zilio C.	2013	1288 - 1307	Nanofluids; pure compound data; thermal conductivity; viscosity		34	7 Int.J.T
155598	Absorption and solubility measurement of CO2 in water-based ZnO and SiO2 nanofluids	Haghtalab A.; Mohammadi M.; Fakrouzian Z.	2015	33 - 42	Nanofluids		392	Fluid P

The “DDB” – button opens a query result window containing the data stored for the marked entry:

Set No.	Source	Pts.	Comp's	#DDB	Tmin [K]	Tmax [K]	Pmin [kPa]	Pmax [kPa]	Comment
[192338 0 0]	DDB	59	2	C8 1,2-Ethanedio1 C174 Water	278	363	100	45000	Nanofluids_
[192361 0 0]	DDB	160	3	C8 1,2-Ethanedio1 C174 Water C4558 Zinc oxide	278	363	100	45000	Nanofluids_
[192362 0 0]	DDB	20	3	C8 1,2-Ethanedio1 C174 Water C4558 Zinc oxide	283	343	100 (const.)		Nanofluids_

Data Set: 192361 Source: 0 (Public DDB) Counter: 0

1 data set/s marked.

A double click on an entry leads to the reference details:

Number	Title	Authors	Publication Year	Pages	Keywords	Volume	Issue	Journal
141604	Characterization and measurements of thermal conductivity, density and rheological properties of zinc oxide nanoparticles dispersed in (ethane-1,2-diol + water) mixture	Cabaleiro D.; Pastoriza-Gallego M.J.; Pineiro M.M.; Lugo L.	2013	405 - 415	Nanofluids		58	J.Chem
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Inspect Entry 141604 [DDB] Database is readonly

Literature Kind: Article in Journal

Dataset Number: 141604 User defined Number:

Title: Characterization and measurements of thermal conductivity, density and rheological properties of zinc oxide nanoparticles dispersed in (ethane-1,2-diol + water) mixture

Authors: Cabaleiro D. Pastoriza-Gallego M.J. Pineiro M.M. Lugo L.

Pages: 405 to 415 Volume: 58 Issue: Series:

Year: to 2013 Journal: 155 J.Chem.Thermodyn. ISSN: 0021-9614

Publisher/Place: Language:

Keywords: Nanofluids;

Comments: Lyngby code: d. cha2013

URL: 1 Open Del New

DOI: 10.1016/j.jct.2012.10.014

Link:

Save Close

ReadOnly

From this form, the “DDB” – button opens a query result window containing the related data:

Query Result [1] <NANO>

File Edit

NANO

All Sets	All Points	All Refs	All Sys.	Sets	Points	Refs	Systems
3	239	1	2	3	239	1	2

=NANO= NanoFluids related Data

Set No.	Source	Pts.	Comp's	#DDB	Tmin [K]	Tmax [K]	Pmin [kPa]	Pmax [kPa]	Comment
[192338 0 0]	DDB	59	2	C8 1,2-Ethanedio1 C174 Water	278	363	100	45000	Nanofluids
[192361 0 0]	DDB	160	3	C8 1,2-Ethanedio1 C174 Water C4558 Zinc oxide	278	363	100	45000	Nanofluids
[192362 0 0]	DDB	20	3	C8 1,2-Ethanedio1 C174 Water C4558 Zinc oxide	283	343	100 (const.)		Nanofluids

Data Set: 192361 Source: 0 (Public DDB) Counter: 0

1 data set/s marked.

Final Comments

The explorer version is a limited version of the Dortmund Data Bank and the DDB software package and is intended only for test purposes and to show the possibilities of the full versions.

In case of any questions, comments or requests please don't hesitate to get in touch with us using support@ddbst.com or the contact form on our web site www.ddbst.com.