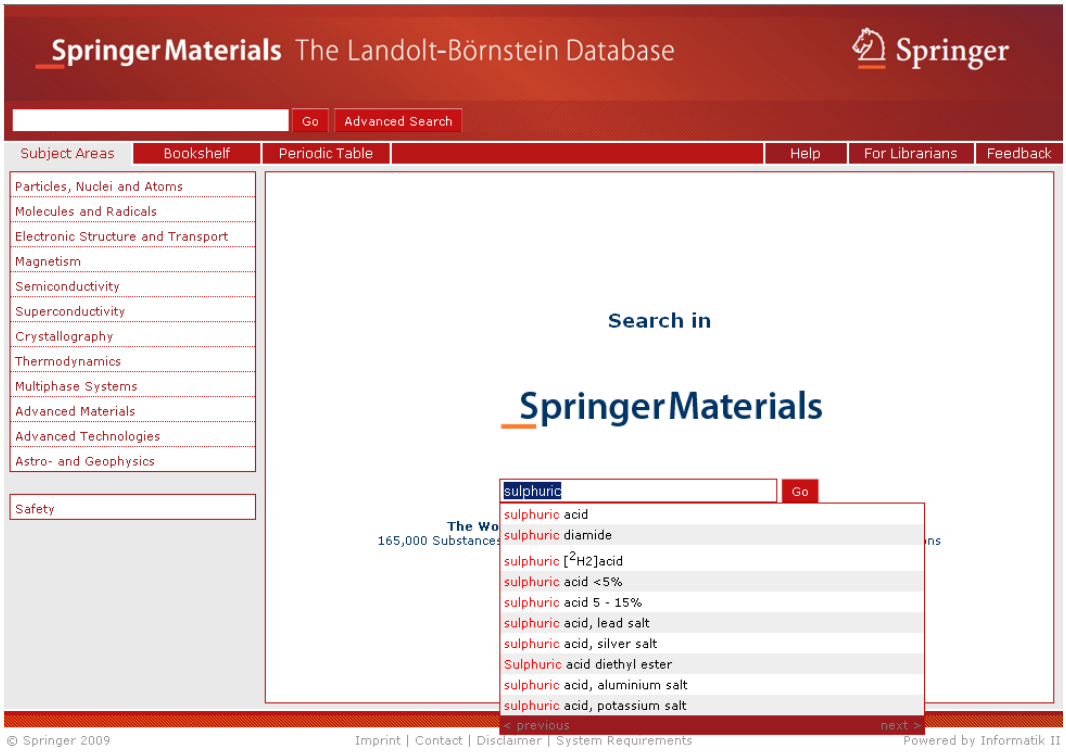
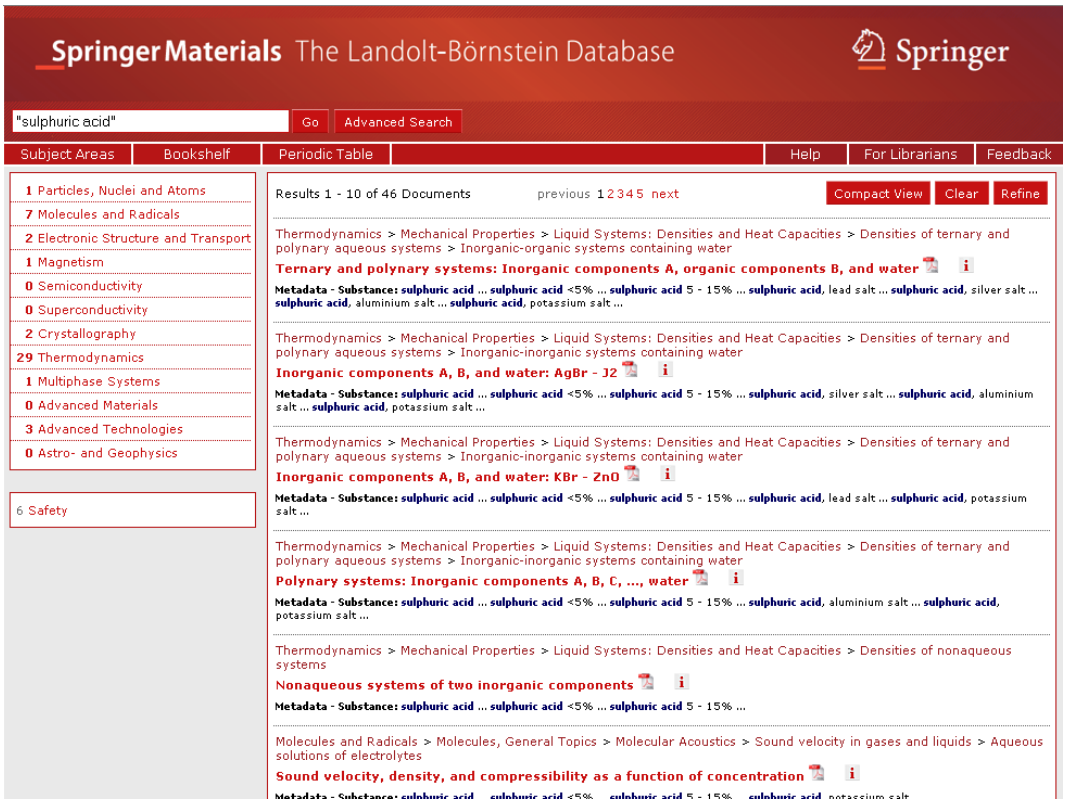
SpringerMaterials Sample Searches

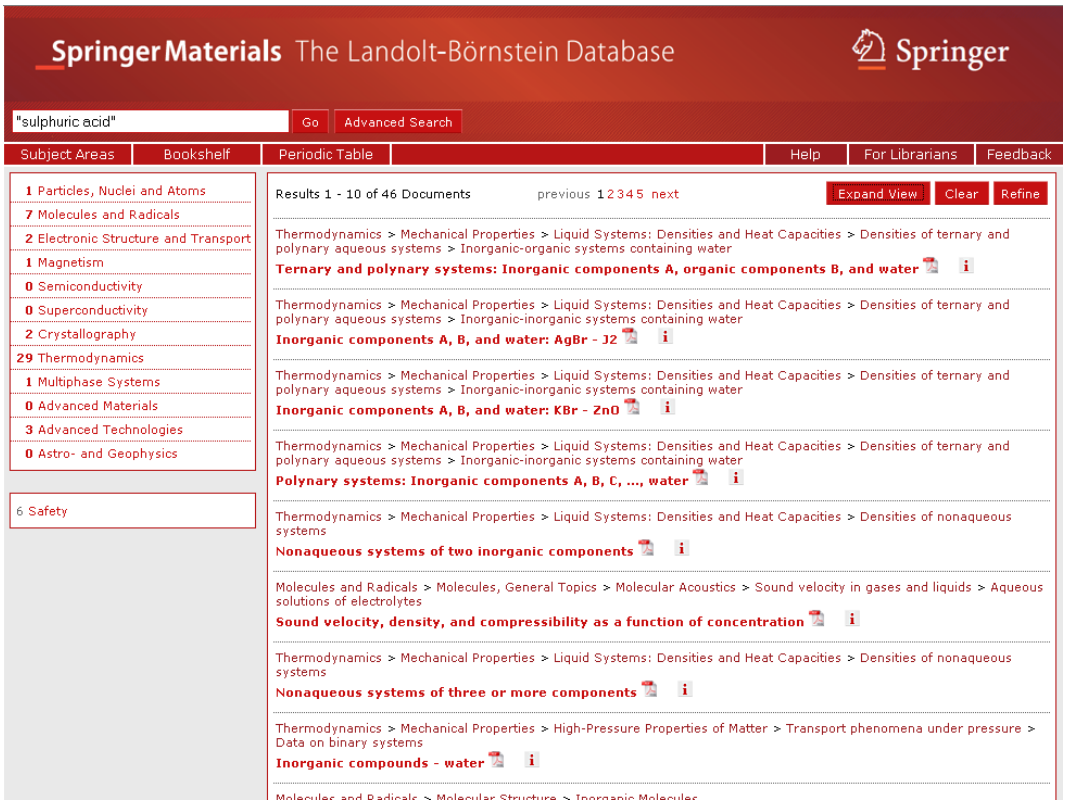
Simple Search



The Simple Search field is found in the center of the SpringerMaterials homepage and replicated in the field below the SpringerMaterials logo. Typing in a query is the quickest way to find data; however, to get a more precise result, refinement is possible in a second step. In the example we are interested in all data available about "sulphuric acid". Typing in the first characters opens a list of suggestions (speed-typing) which shows the available content. A click on the first term and pushing the "Go" button executes the query. A list of available documents is shown:



Each document found by the query is presented by indicating the path to the document in the systematic hierarchy, the title of the document, and the context of the search terms within the document. A more compact list not showing the context can be obtained by clicking "Compact View":



Clicking "Refine" opens the "Advanced Search" form.

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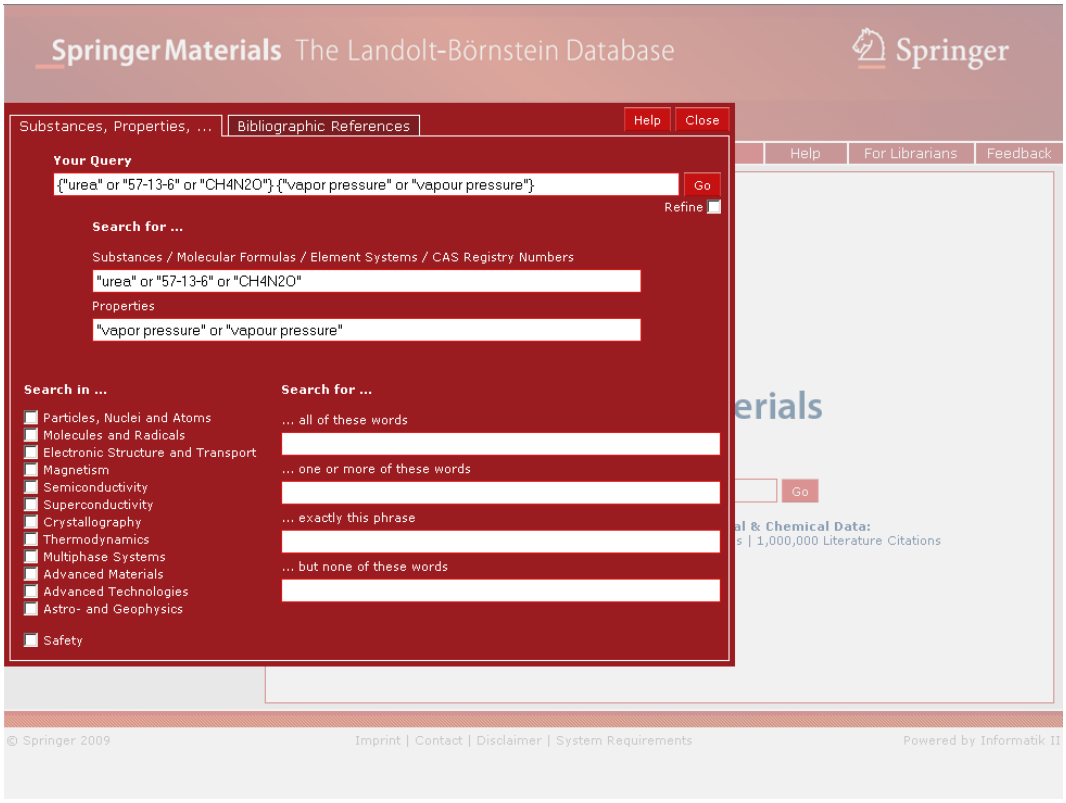
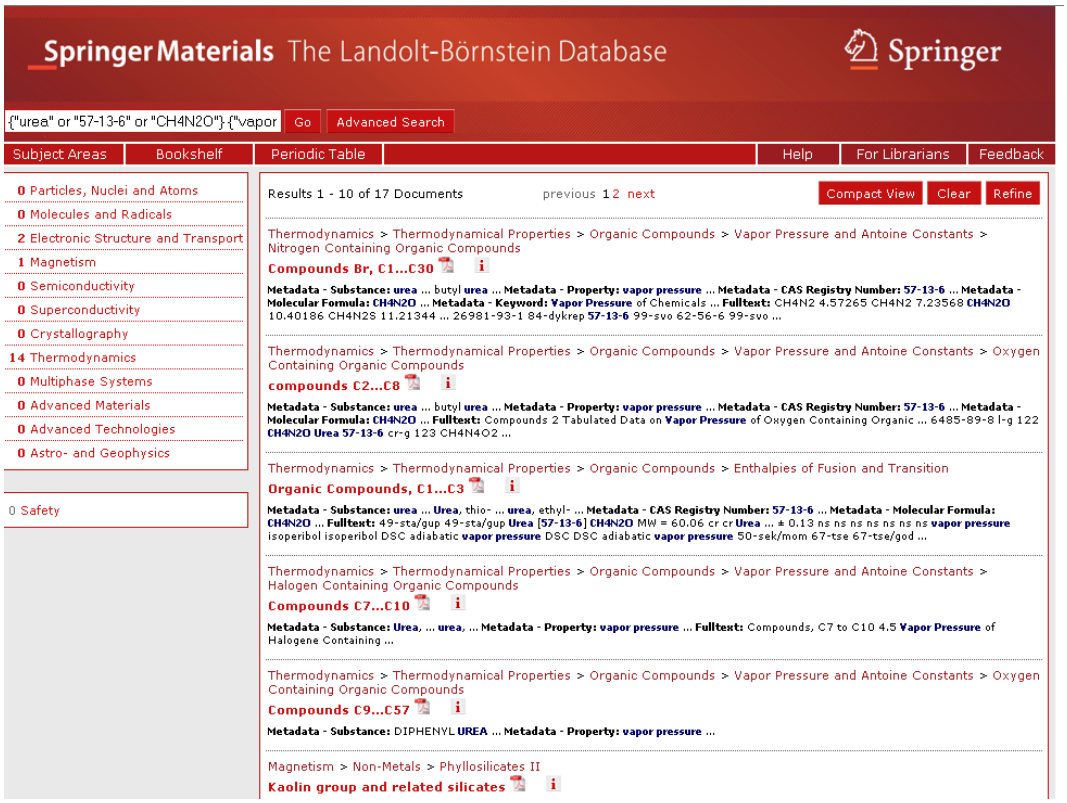
Advanced Search



The Advanced Search allows specific searches for chemical substances and their properties. Chemical substances can be specified by their element systems, molecular formulas, CAS registry numbers, or proper names. In the example the user is searching for the vapor pressure of urea. Thus, "urea" was typed in the substance search field and the appropriate entry was chosen from the list of suggestions. Then the first characters of the property "vapor pressure" were typed and the corresponding hit was chosen from the list of suggestions. "Your Query" combines all search strings from the other fields of the advanced search page into a Boolean query that can be submitted as is or adapted if necessary. Pushing the "Go" button executes the query.

The following screenshot shows the list of available documents:



The PDF document in the first hit is the best and includes the vapor pressure of urea.

A combined substance/property search is a typical use case for SpringerMaterials.

The Advanced Search page is opened by clicking on the "Advanced Search" button or by clicking the "Refine" button in the list of hits, e.g., as a second step after a simple search.

Besides the search for chemical substances and properties, the "Advanced Search" allows you to search for a specific word, for exact phrases, and to exclude documents containing specific words from the search results. Moreover, search can be restricted to one or more subject areas.

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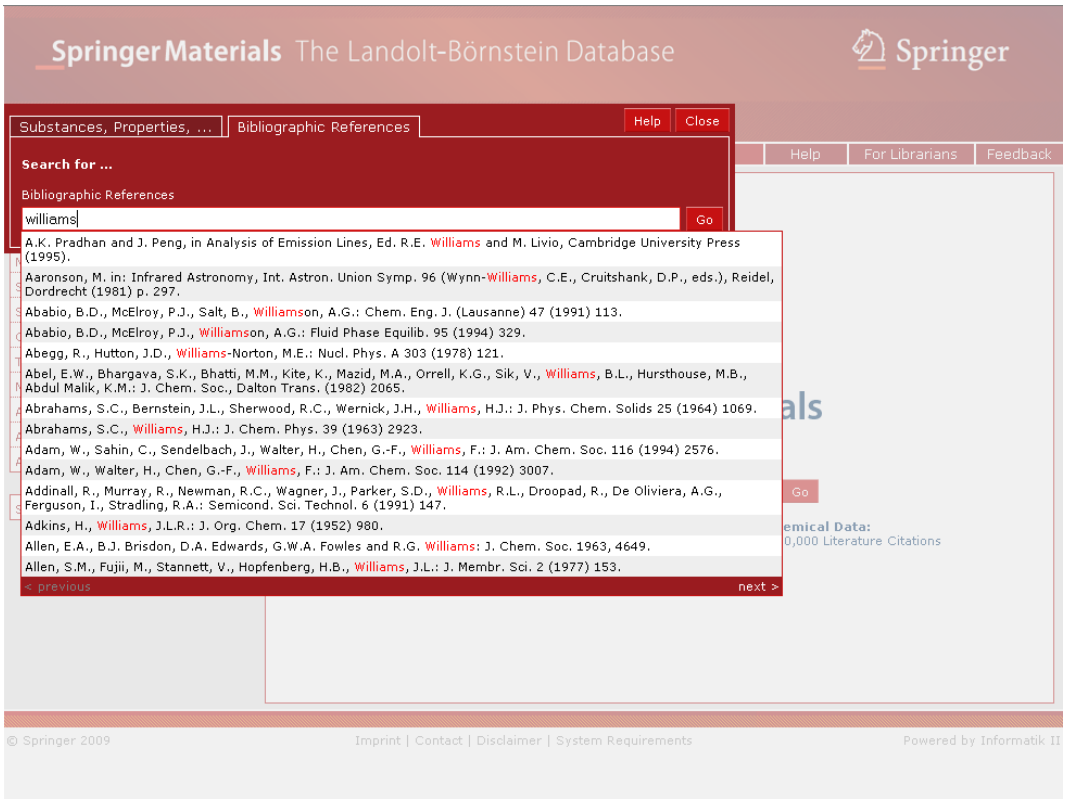
Bibliography Search



The "Bibliography Search" is part of the Advanced Search feature. SpringerMaterials contains over 1 million references to primary literature (over 8000 journals are referenced). A fulltext search performed on the reference collection will immediately deliver authors, editors, publications if referenced in the database. Typing effort for query formulation is reduced by suggestions of terms (speed-typing) showing available content. In this example we typed in "williams" and get suggestions of possible references where the substring "williams" occurs. A click on one of the references leads to documents citing this literature.

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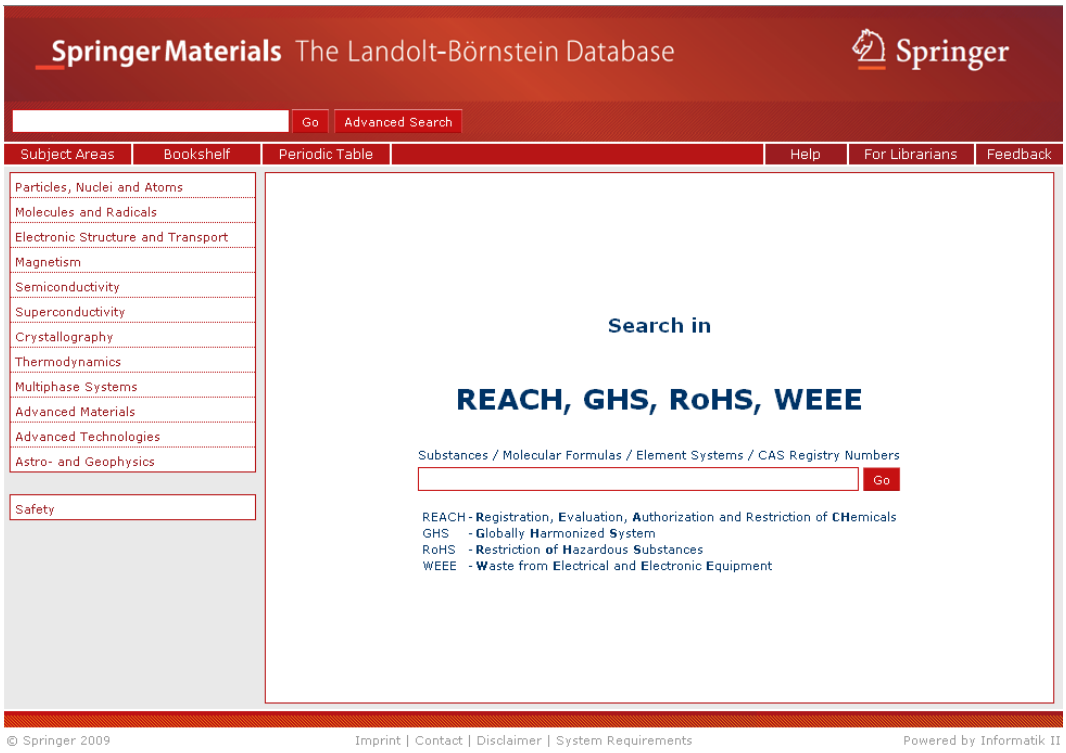
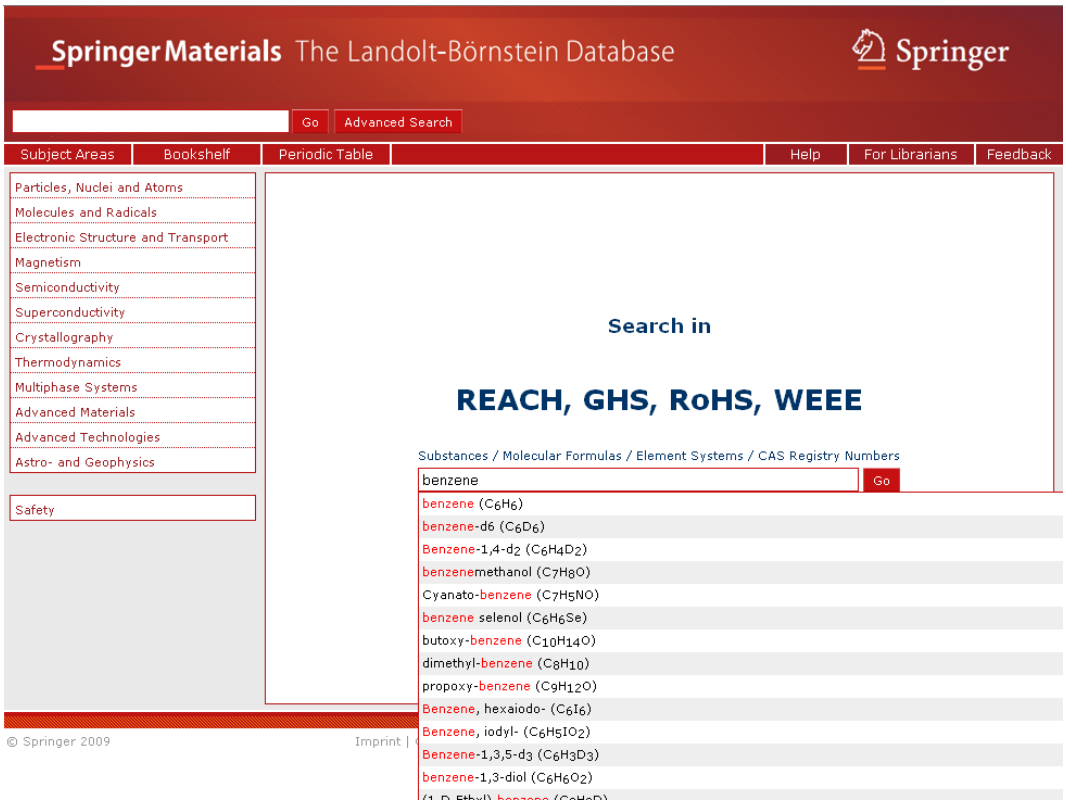
Safety Document Search

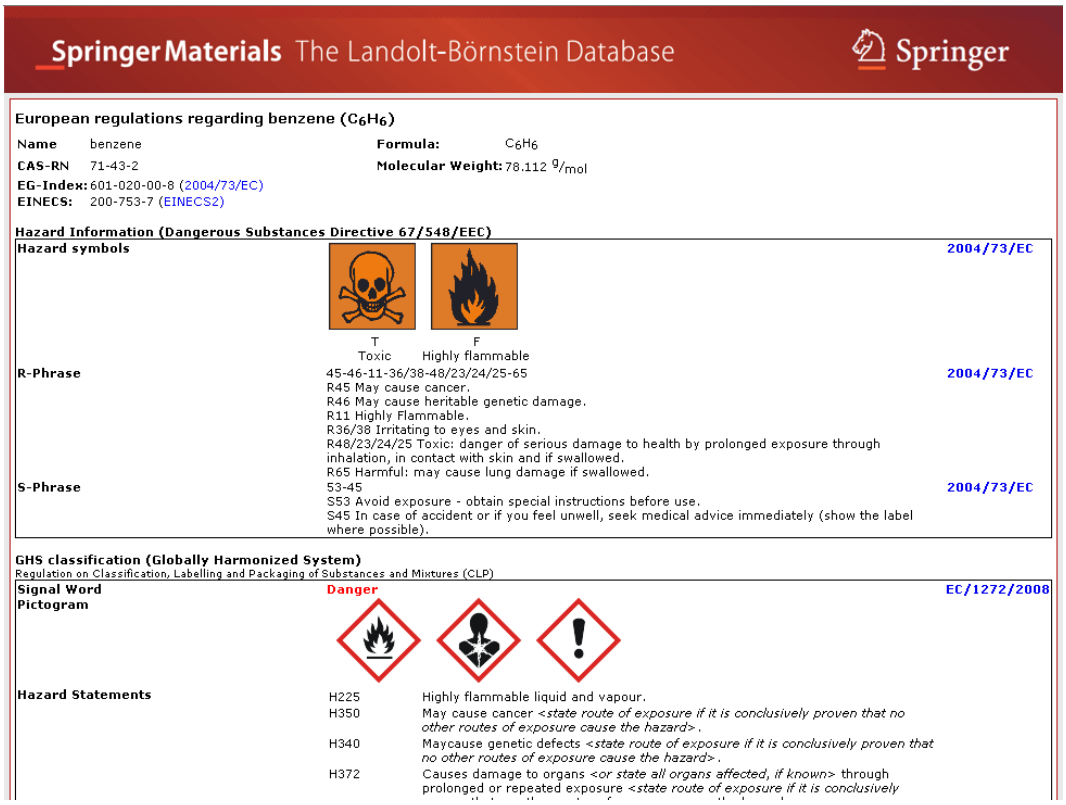


The "Safety Document Search" can be accessed by clicking "Safety" on the SpringerMaterials home page. It facilitates finding safety-relevant information on the substances included in SpringerMaterials. Substances can be specified by their proper names, molecular formulas, element systems, or CAS-Registry Numbers.



"Safety Document Search" finds data from REACH (Registration, Evaluation, Authorization and Restriction of Chemicals). If available, data about Hazard Information (Dangerous Substances Directive 67/548/EEC), GHS (Globally Harmonized System), RoHS (Restriction of Hazardous Substances), WEEE (Waste from Electrical and Electronic Equipment) and on the European CHemicals Agency (ECHA) pre-registration are also given.

In the example the user is interested in REACH-relevant data of benzene. A click on the first entry in the list of suggestions opens the corresponding data sheet:



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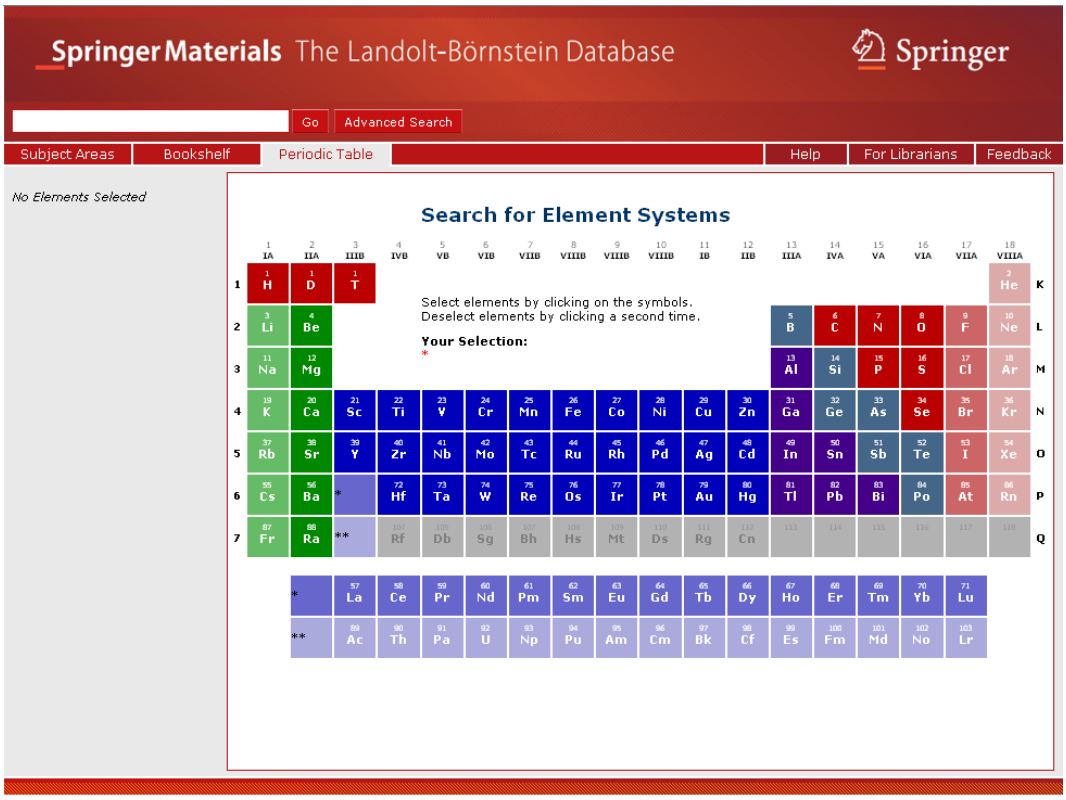
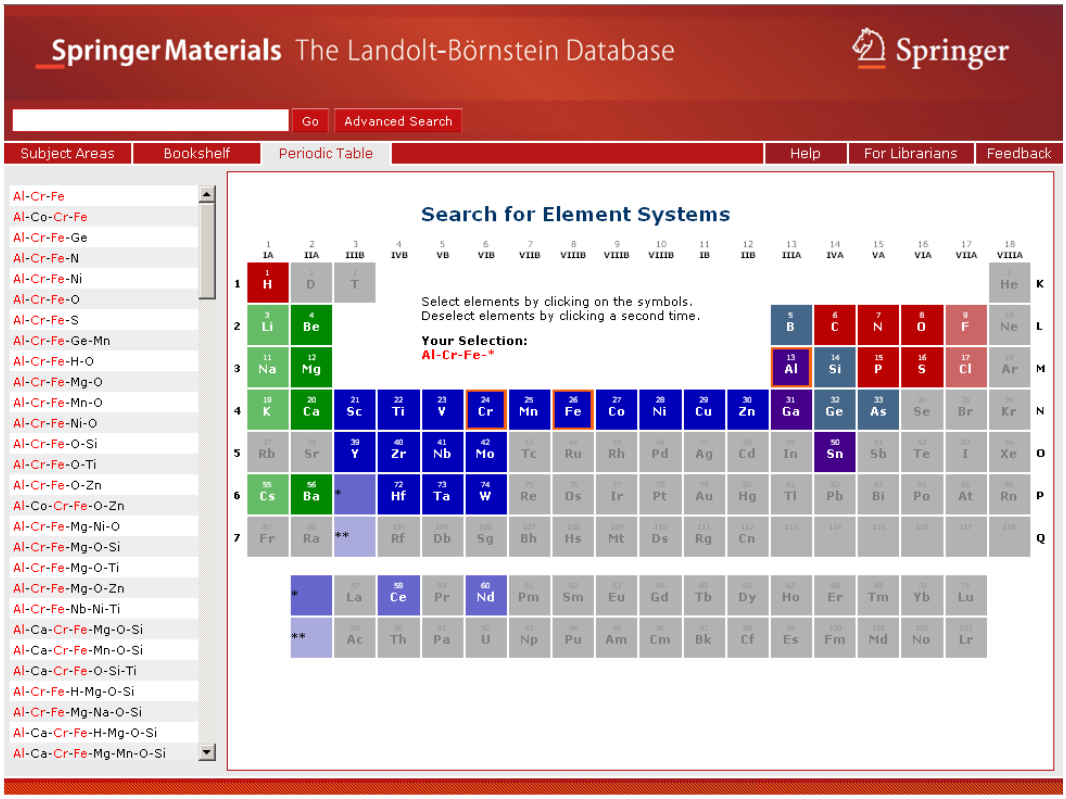
Periodic Table Search



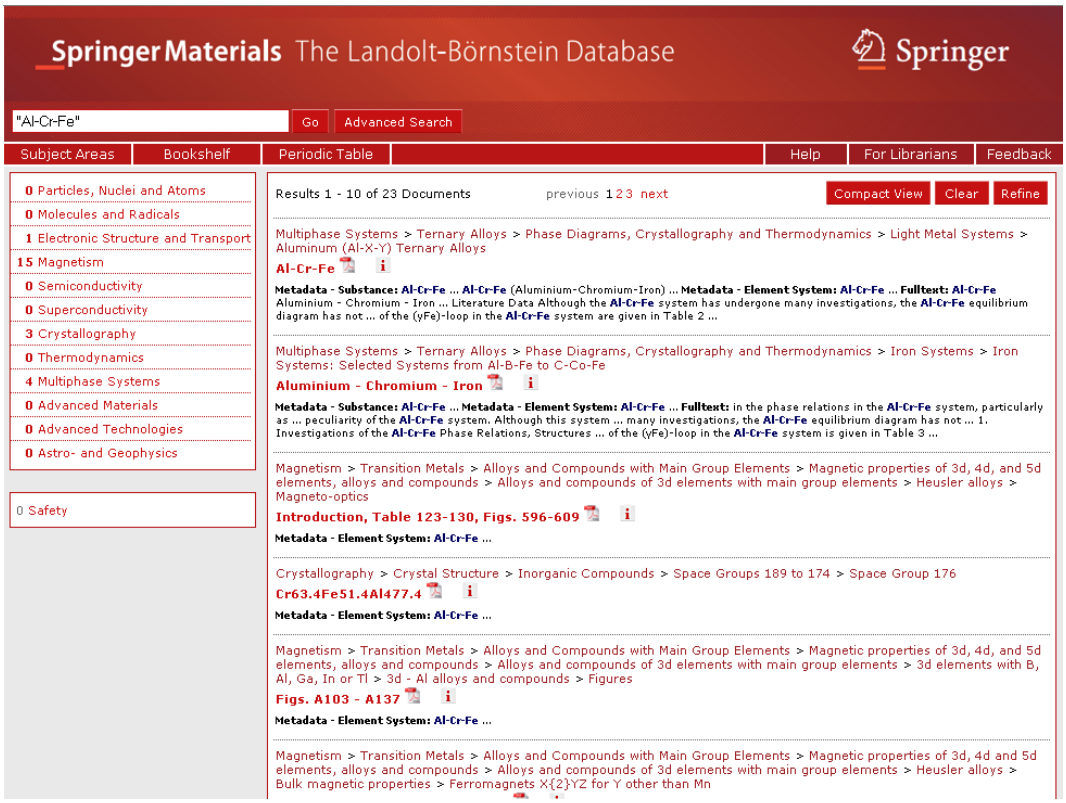
A click on the button "Periodic Table" opens a window showing the Periodic Table of Chemical Elements. It supports a search by element systems of substances and materials. Elements can be selected by clicking on the symbols of the Periodic Table. The elements chosen can be deselected by clicking on them a second time either in the Periodic Table or in the "Your Selection" string.



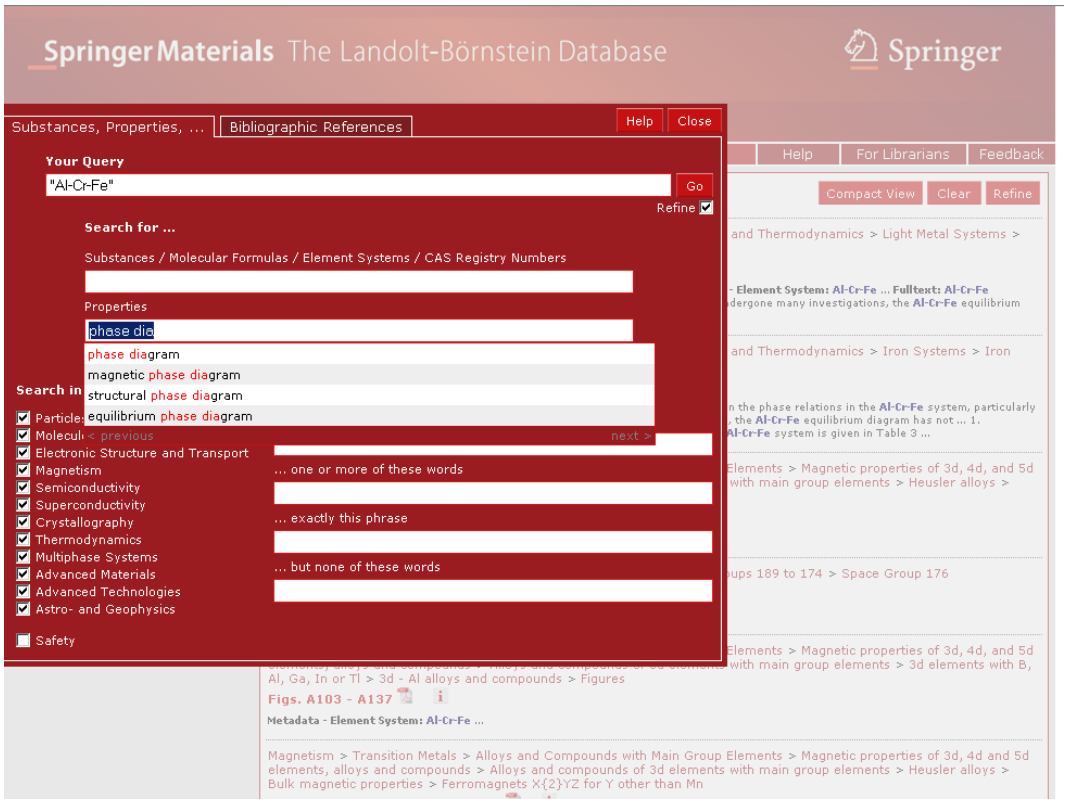
Elements chosen are highlighted by an orange frame and are also displayed in the central "Your Selection" string. Elements not available for further combinations are grayed-out in the Periodic Table.

After choosing an element a list of available element systems opens on the left hand. Chosen elements are marked red, black elements show further possible combinations. Click on a possible combination from the list and a list of available documents is shown in a new window.

In this example, we have chosen aluminum (Al), chromium (Cr) and iron (Fe). By clicking the first entry in the list of available element systems ("Al-Cr-Fe"), a list of documents containing this element system appears:



To add any other search criteria, a click on the "Refine" button (top right) opens the Advanced Search window:



In this case we are interested in a phase diagram of the element system Al-Cr-Fe. Typing in the first characters into the Properties search field opens the speed-typing list, and the entry "phase diagram" can be chosen. The complete search phrase will then be shown in the field "Your Query" which can be edited or left as it is. Pushing the "Go" button will lead to the list of available documents.

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