

How To...

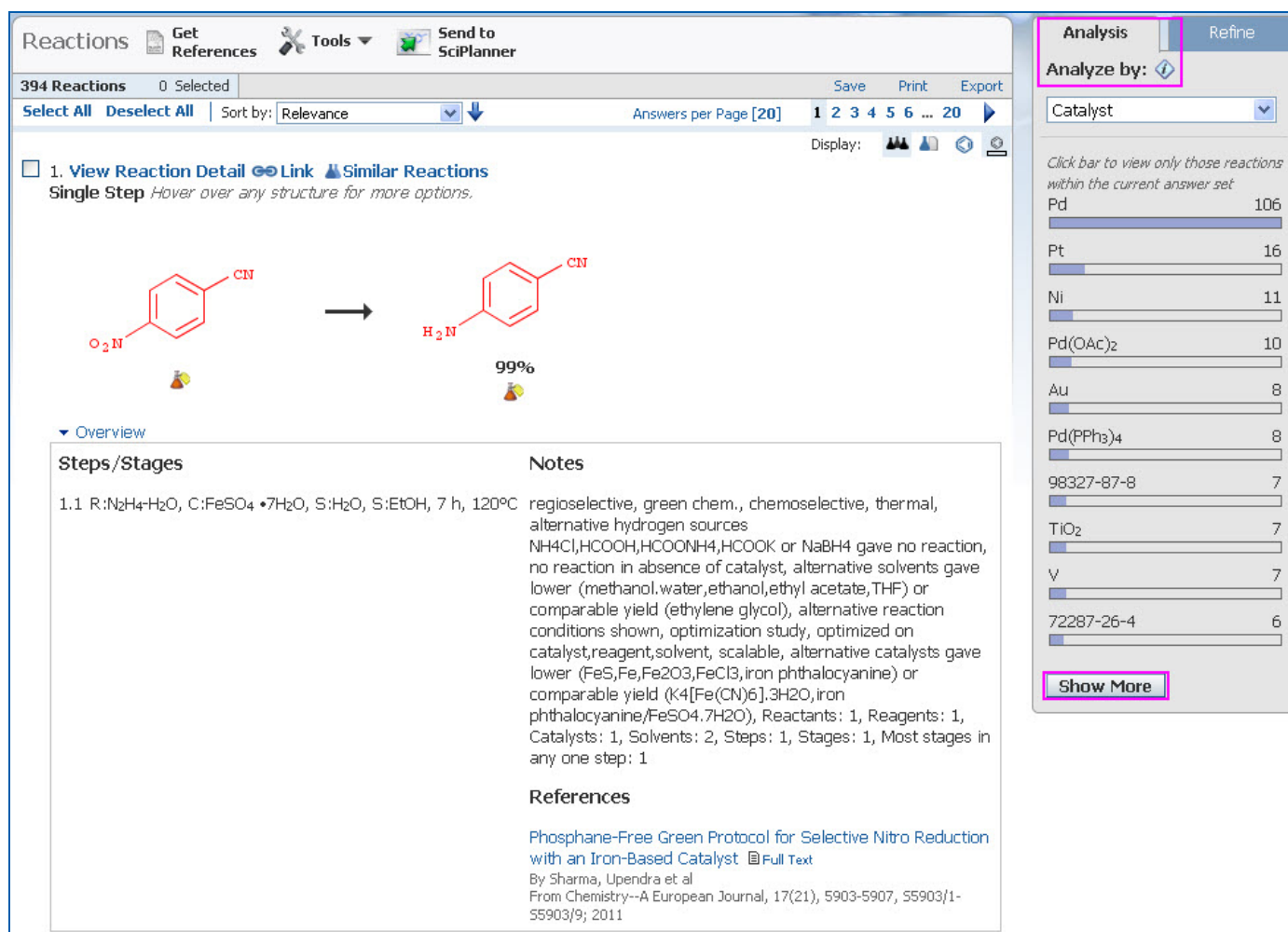
Analyze Reaction Answers




Analyze is a SciFinder® tool to explore, evaluate, and review a reaction answer set. Analyzing helps you get different views of your answer set, such as, by catalyst, author, document type, and other criteria.

When reactions are displayed, an analysis of the answer set automatically appears on the right.


Analyze by Catalyst is the default, and the first ten analysis bars are displayed. Each bar represents a subset of the answer set. The number to the right is the number of reactions in that subset.



Analyze does not create a new answer set. It creates a temporary focused view of the current set.




Reactions   

394 Reactions 0 Selected Save Print Export

Select All Deselect All Sort by: Relevance Answers per Page [20] 1 2 3 4 5 6 ... 20 Display: 


1. View Reaction Detail  Link  Similar Reactions
Single Step Hover over any structure for more options.




▼ Overview

Steps/Stages	Notes
1.1 R:N ₂ H ₄ ·H ₂ O, C:FeSO ₄ ·7H ₂ O, S:H ₂ O, S:EtOH, 7 h, 120°C	regioselective, green chem., chemoselective, thermal, alternative hydrogen sources NH ₄ Cl, HCOOH, HCOONH ₄ , HCOOK or NaBH ₄ gave no reaction, no reaction in absence of catalyst, alternative solvents gave lower (methanol, water, ethanol, ethyl acetate, THF) or comparable yield (ethylene glycol), alternative reaction conditions shown, optimization study, optimized on catalyst, reagent, solvent, scalable, alternative catalysts gave lower (FeS, Fe, Fe ₂ O ₃ , FeCl ₃ , iron phthalocyanine) or comparable yield (K ₄ [Fe(CN) ₆]·3H ₂ O, iron phthalocyanine/FeSO ₄ ·7H ₂ O), Reactants: 1, Reagents: 1, Catalysts: 1, Solvents: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

References

[Phosphane-Free Green Protocol for Selective Nitro Reduction with an Iron-Based Catalyst](#)  Full Text
By Sharma, Upendra et al
From Chemistry--A European Journal, 17(21), 5903-5907, 55903/1-55903/9; 2011

Analysis Refine

Analyze by:  Catalyst

Click bar to view only those reactions within the current answer set

Pd	106
Pt	16
Ni	11
Pd(OAc) ₂	10
Au	8
Pd(PPh ₃) ₄	8
98327-87-8	7
TiO ₂	7
V	7
72287-26-4	6

Show More

1. Click **Show More** to see additional analysis bars.

2. To change the analysis category, select another option from the drop-down menu.

SELECT THIS OPTION...	TO IDENTIFY...
Author Name	Authors reporting the reactions
Catalyst	Catalyst used in the reactions
Company-Organization	Companies or organizations reporting the reactions
Document Type	Type of document in which the reaction was reported
Experimental Procedure	Answers that contain experimental procedure details
Journal Name	Journal in which the reactions were published
Language	Language in which the reactions were reported
Number of Steps	Number of steps in the reactions
Product Yield	Percent yields of the reactions
Publication Year	Years in which the reactions were published
Solvent	Solvents used in the reactions

3. To display the reactions in a subset, click on an analysis bar.

The selected bar turns yellow. If reactions are also part of other subsets, the corresponding portions of those bars also turn yellow. In the example shown below, 10 reactions involve Pd(OAc)₂ as a catalyst. These are a subset of the 106 reactions that involve Pd.

4. To select multiple subsets at once, click **Show More**.

5. Select the subsets of interest and click **Apply**.
6. Select the order in which the analysis bars are sorted in the drop-down menu.
 - Frequency (default) displays only the top 500 bars
 - Natural Order displays all the bars in alphanumeric order

Analysis - Catalyst ⓘ

72 Items 2 Selected Export

Sort by: Frequency 1 2 ▶

Select bars: Frequency Natural Order actions within the current answer set.

<input type="checkbox"/>	Reactions not containing information for this analysis	187
<input checked="" type="checkbox"/>	Pd	106
<input type="checkbox"/>	Pt	16
<input type="checkbox"/>	Ni	11
<input checked="" type="checkbox"/>	Pd(OAc) ₂	10
<input type="checkbox"/>	Au	8
<input type="checkbox"/>	Pd(PPh ₃) ₄	8
<input type="checkbox"/>	98327-87-8	7
<input type="checkbox"/>	TiO ₂	7
<input type="checkbox"/>	V	7

Apply Cancel

The filtered answer set is displayed, as indicated by the message in yellow.

- To create a new answer set containing only the reactions in the analyzed set, click **Keep Analysis**.
- To return to the full answer set (without the analysis applied), click **Clear Analysis**.

For information on using SciPlanner, see the interactive tutorial: Plan a Synthesis Project in [Learning Solutions](#) resource center.

The screenshot displays the SciFinder interface. At the top, a navigation bar includes 'Reactions', 'Get References', 'Tools', and 'Send to SciPlanner'. Below this, a status bar shows '394 Reactions' and '0 Selected'. A yellow highlight indicates '115 reactions with the Catalysts Pd, Pd(OAc)₂ are displayed', with 'Keep Analysis' and 'Clear Analysis' buttons. The main area shows a reaction: 4-nitrobenzamide (O₂N-C₆H₄-CONH₂) is reduced to 4-aminobenzamide (H₂N-C₆H₄-CONH₂) with a 93% yield. Below the reaction is an 'Overview' section with 'Steps/Stages' (1.1 R: Ethidine, C: Pd, S: PhMe, 2 h, reflux; reflux → rt) and 'Notes' (solid-supported catalyst, Reactants: 1, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1). A 'References' section lists a paper by Niu, Xiuqin et al. (2009). On the right, an 'Analysis' sidebar shows a 'Catalyst' dropdown and a bar chart of catalyst counts: Pd (106), Pt (16), Ni (11), Pd(OAc)₂ (10), Au (8), Pd(PPh₃)₄ (8), 98327-87-8 (7), TiO₂ (7), V (7), and 72287-26-4 (6). A 'Show More' button is at the bottom of the sidebar.

Additional resources

To learn more about working with reaction answer sets, refer to

- SciFinder online help files
- How To Guides for:
 - Refine Reference Answers
 - Combine Answer Sets
 - Print, Save, and Export
- Instructor-led and self-directed learning options in the [Learning Solutions](#) resource center