

# ICSD-无机晶体结构数据库 使用指南

iGroup · 上海

# ICSD主页



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## Basic Search

Authors	<input type="text"/>	Volume	<input type="text"/>
Title of	<input type="text"/>	Page	<input type="text"/>
Year of Publication	<input type="text"/>		
Cell &	<input type="text"/>		
Cell Pa	<input type="text"/>		
Cell Volume	<input type="text"/>	Tolerance +/-	<input type="text"/> %
Space Group	<input type="text"/>	Crystal System	<input type="text"/>
Symbol/ Number	<input type="text"/>	Pearson Symbol	<input type="text"/>
Chemis	<input type="text"/>		
Composition	<input type="text"/>	Number of Elements	<input type="text"/>
ANX Formula	<input type="text"/>		
Cryst. Comp.	<input type="text"/>		
AB Formula	<input type="text"/>		
Chem. Comp.	<input type="text"/>		

基本检索

高级检索

检索式管理

## Search Action

Run Query Save Query Clear Query

## Search Summary

Basic Search: -

## Query History

Number of queries: 19

Clear Query History

2012-08-06T17:43 CHEM,STYPE	3
2012-07-25T13:28 CHEM,STYPE,EXP,...	1
2012-07-25T13:25 CHEM,STYPE	3
2012-07-25T13:22 STYPE	707
2012-07-25T13:21 STYPE	0
2012-07-03T10:09 BIB,CELL	0

# 高级检索-依据文献检索

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**Bibliographic Search**

Authors  e.g. Jansen

Title of Journal  e.g. Angewandte Chemie

Title of Article  e.g. Super conducting crystals

Year of Publication  e.g. >2008 2000-2006

Volume  e.g. 10

Page  e.g. 10

Clear Bibliographic Search      Count Bibliographic Search

**Annotations:**

- 检索相应作者提供的晶体结构 (Authors)
- 检索来源于某期刊的晶体结构 (Title of Journal)
- 检索来源于某文章的晶体结构 (Title of Article)
- 限定来源出版物的时间 (Year of Publication)
- 限定来源出版物的卷期 (Volume)

# 高级检索-依据晶胞检索

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**Search Cell parameters Search mode** Switch to **Extended Search mode**

**晶胞参数**  
Cell Parameters   
e.g. 5.6 5.6 \* 90 90 90

**晶胞体积**  
Cell Volume V  Units of Length

**密度**  
Calc.Density  g/cm<sup>3</sup>

**误差**  
Global Tolerance +/-  %

**选择晶胞数据的类型**  
Reduce Cell Parameters  Search Cell Data:

**选择是否限定 reduce cell 参数**  
Centering

# 高级检索-依据化学式检索

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## Search Chemistry Quick Search mode



Visual Search mode

成分

Composition

e.g. Na Cl

元素数量

Number of Elements

结构式

Structural Formula

e.g. Pb (W O4)

化学物质  
名称

Chemical Name

矿物名称

Mineral Name

e.g. Adamite

矿物群

Mineral Group

e.g. Pyroxene

结构类型

ANX Formula

Cryst. Comp.

AB Formula

Chem. Comp.

Number of Formula  
Units

Clear Chemistry Search

Count Chemistry Search


# 高级检索-依据晶体对称性检索


**Navigation**


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**Symmetry Search**


Note: Restrictions apply to Experimental Cell


Space Group Symbol/ Number    
e. g. Fm-3m or "F m -3 m"  
or 1 2-10 210-229


Wyckoff sequence  

Centering  

Crystal class  

Pearson Symbol  

Crystal System  

Laue Class  

**空间群**

**Wyckoff序列**

**对称中心**

**晶体等级**

**Pearson符号**

**晶系**

**Laue群**

# 高级检索-依据原子坐标检索


Navigation		Crystal Chemistry Search																																																																													
Basic search & retrieve		<table border="1"><thead><tr><th colspan="2">Interatomic Distances</th><th colspan="2">限定原子间的距离</th><th colspan="2"></th><th><math>d_{\min}^{AB}</math></th><th><math>d_{\max}^{AB}</math></th></tr><tr><th>Atom A</th><th>Ox. A</th><th></th><th>Atom B</th><th>Ox. B</th><th></th><th></th><th></th></tr></thead><tbody><tr><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>AND</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>AND</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>AND</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> <table border="1"><thead><tr><th colspan="3">Crystal Structure is</th><th colspan="2">限定晶体结构类型</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td>Polytype Structure</td><td><input type="checkbox"/></td><td>Order/Disorder Structure</td><td><input type="checkbox"/></td><td>Structure Type</td></tr><tr><td><input type="checkbox"/></td><td>Defect Structure</td><td><input type="checkbox"/></td><td>Misfit Layer Structure</td><td colspan="2"></td></tr><tr><td><input type="checkbox"/></td><td>Disordered Structure</td><td><input type="checkbox"/></td><td>Mineral</td><td colspan="2"></td></tr></tbody></table> <p><input type="button" value="Clear Check Boxes"/></p> <p><input type="button" value="Clear Crystal Search"/> <input type="button" value="Count Crystal Search"/></p>							Interatomic Distances		限定原子间的距离				$d_{\min}^{AB}$	$d_{\max}^{AB}$	Atom A	Ox. A		Atom B	Ox. B						-						AND		-						AND		-						AND		-						Crystal Structure is			限定晶体结构类型		<input type="checkbox"/>	Polytype Structure	<input type="checkbox"/>	Order/Disorder Structure	<input type="checkbox"/>	Structure Type	<input type="checkbox"/>	Defect Structure	<input type="checkbox"/>	Misfit Layer Structure			<input type="checkbox"/>	Disordered Structure	<input type="checkbox"/>	Mineral		
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# 高级检索-依据晶体结构检索


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**Structure Type Search**


Structure Type   **结构类型**  
e.g. Mg<sub>2</sub>SiO<sub>4</sub>


**Structure Descriptors**

Pearson Symbol   **Pearson符号**  
e.g. cF8

ANX Formula   **ANX结构**  
e.g. AX<sub>2</sub>

Space Group Symbol   **空间群**  
e.g. FM-3M

Wyckoff Sequence   **Wyckoff序列**  
e.g. e4da

c/a-Ratio   **c/a比率**  
e.g. 5



# 高级检索-依据实验信息检索

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**Experimental Information Search**

Temperature  **温度**  
e.g. 200K 200-300K

Pressure  **压力**  
e.g. 2MPa 5-7GPa

Comments  **注释**  
e.g. structure above

R-Value  **R值**

**Radiation Type**

- X-Ray
- Electrons **射线类型**
- Neutrons
- Synchrotron

**Sample Type**

- Powder
- Single Crystal **样本类型**

[Clear Check Boxes](#)

**Additional Properties** **其他属性**

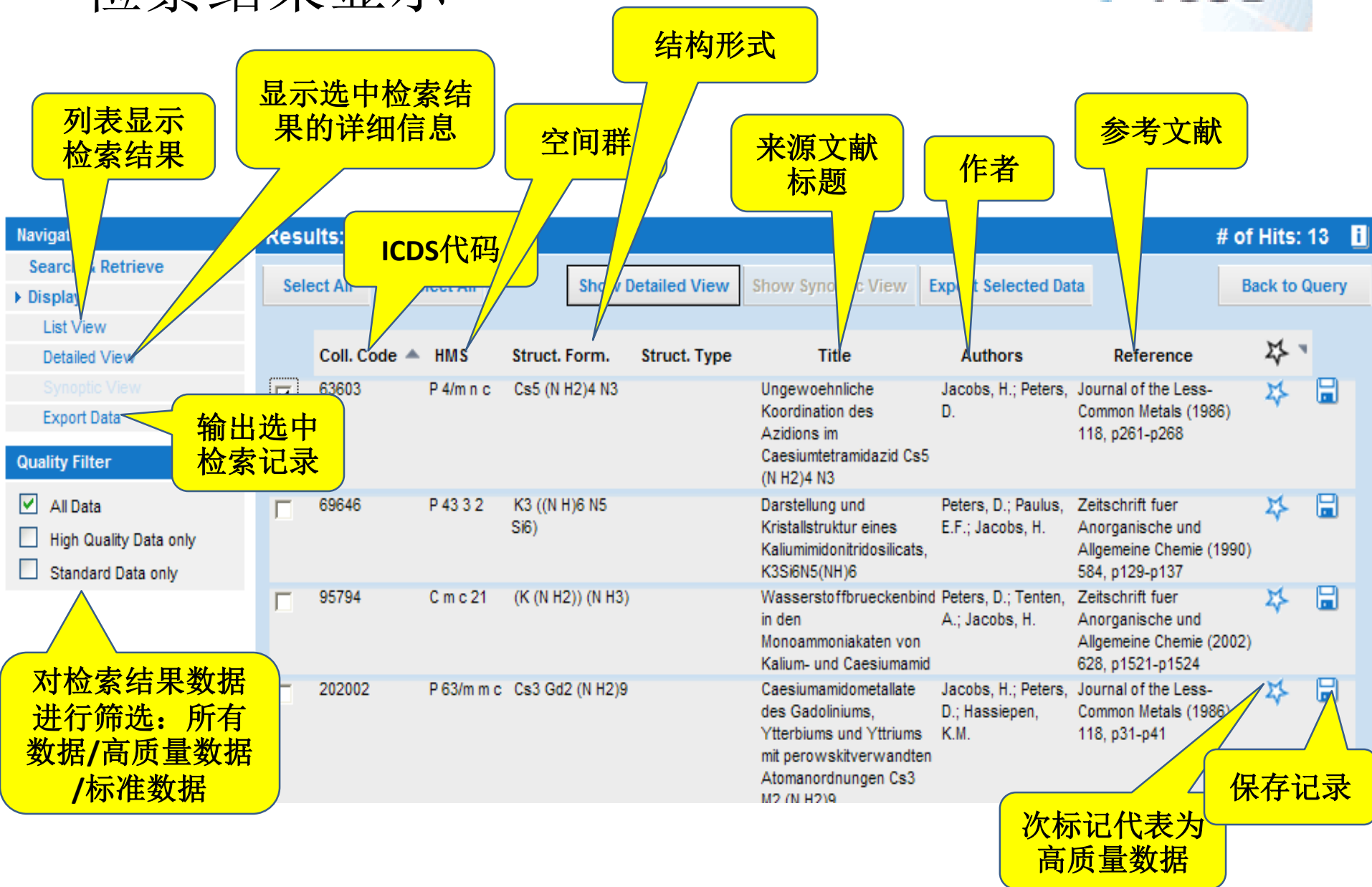
- Twinned Crystal Data
- Rietveld Refinement employed
- Anharmonic Temperature Factors given
- Absolute Configuration determined
- Theoretically calculated structures
- NMR Data available
- Magnetic Structure available
- Correction of earlier work

[Clear Check Boxes](#)

# 高级检索-依据数据库记录信息检索

Navigation	DB Info Search
Basic search & retrieve	
▼ Advanced search & retrieve	
Bibliography	ICSD Collection Code <input type="text"/> e.g. 9061 90000-95000 <b>ICSD代码</b>
Cell	
Chemistry	PDF Number <input type="text"/> e.g. S 01-077-1145 or 47-1360 <b>PDF文档号码</b>
Symmetry	
Crystal Chemistry	
Structure Type	
Experimental Information	Release Tag <input type="text"/> e.g. 2007.1 or 2005.1-2007.1 <b>发布时间</b>
DB Info	
▼ Query Management	
Load/Modify Queries	Recording Date <input type="text"/> yyyy-mm-dd, e.g. 1998-06-26 <b>收录日期</b>
Save Queries	
Delete Queries	Modification Date <input type="text"/> yyyy-mm-dd, e.g. 2006-04-01 <b>修改日期</b>
	New Data Only <input type="checkbox"/> <b>限定来源仅为新数据</b>
	<input type="button" value="Clear DB Info Search"/> <input type="button" value="Count DB Info Search"/>

# 检索结果显示



**列表显示检索结果**

**显示选中检索结果的详细信息**

**ICDS代码**

**空间群**

**结构形式**

**来源文献标题**

**作者**

**参考文献**

**输出选中检索记录**

**对检索结果数据进行筛选：所有数据/高质量数据/标准数据**

**次标记代表为高质量数据**

**保存记录**

Coll. Code	HMS	Struct. Form.	Struct. Type	Title	Authors	Reference
63603	P 4/m n c	Cs5 (N H2)4 N3		Ungewoehnliche Koordination des Azidions im Caesiumtetramidazid Cs5 (N H2)4 N3	Jacobs, H.; Peters, D.	Journal of the Less-Common Metals (1986) 118, p261-p268
69646	P 43 3 2	K3 ((N H)6 N5 Si6)		Darstellung und Kristallstruktur eines Kaliumimidonitridosilicats, K3Si6N5(NH)6	Peters, D.; Paulus, E.F.; Jacobs, H.	Zeitschrift fuer Anorganische und Allgemeine Chemie (1990) 584, p129-p137
95794	C m c 21	(K (N H2)) (N H3)		Wasserstoffbrueckenbindung in den Monoammoniakaten von Kalium- und Caesiumamid	Peters, D.; Tenten, A.; Jacobs, H.	Zeitschrift fuer Anorganische und Allgemeine Chemie (2002) 628, p1521-p1524
202002	P 63/m m c	Cs3 Gd2 (N H2)9		Caesiumamidometallate des Gadoliniums, Ytterbiums und Ytriums mit perowskitverwandten Atomanordnungen Cs3 M2 (N H2)9	Jacobs, H.; Peters, D.; Hassiepen, K.M.	Journal of the Less-Common Metals (1986) 118, p31-p41


# 检索结果的详细信息

## Summary

Collection Code 63603

Struct. formula	Cs <sub>5</sub> (N H <sub>2</sub> ) <sub>4</sub> N <sub>3</sub>		
Space Group	P 4/m n c(128)		
Unit Cell	8.918(2) 8.918(2) 8.807(2) 90. 90. 90.		
Cell Volume	700.43 Å <sup>3</sup>	Formula Units per Cell	2
Temperature	room temperature	Pressure	atmospheric
PDF-numbers	<a href="#">01-078-2385 38-671</a>	R-value	0.036

Author	Jacobs, H.; Peters, D.
Title of Article	Ungewoehnliche Koordination des Azidions im Caesiumtetramidazid Cs <sub>5</sub> (N H <sub>2</sub> ) <sub>4</sub> N <sub>3</sub>
Reference	Journal of the Less-Common Metals (1986) 118, p261-p268
Warnings & Comments	1 Warnings / 0 Comments

Remark  High Quality Data

[Export CIF File](#)

[Feedback to the ICSD Editor](#)

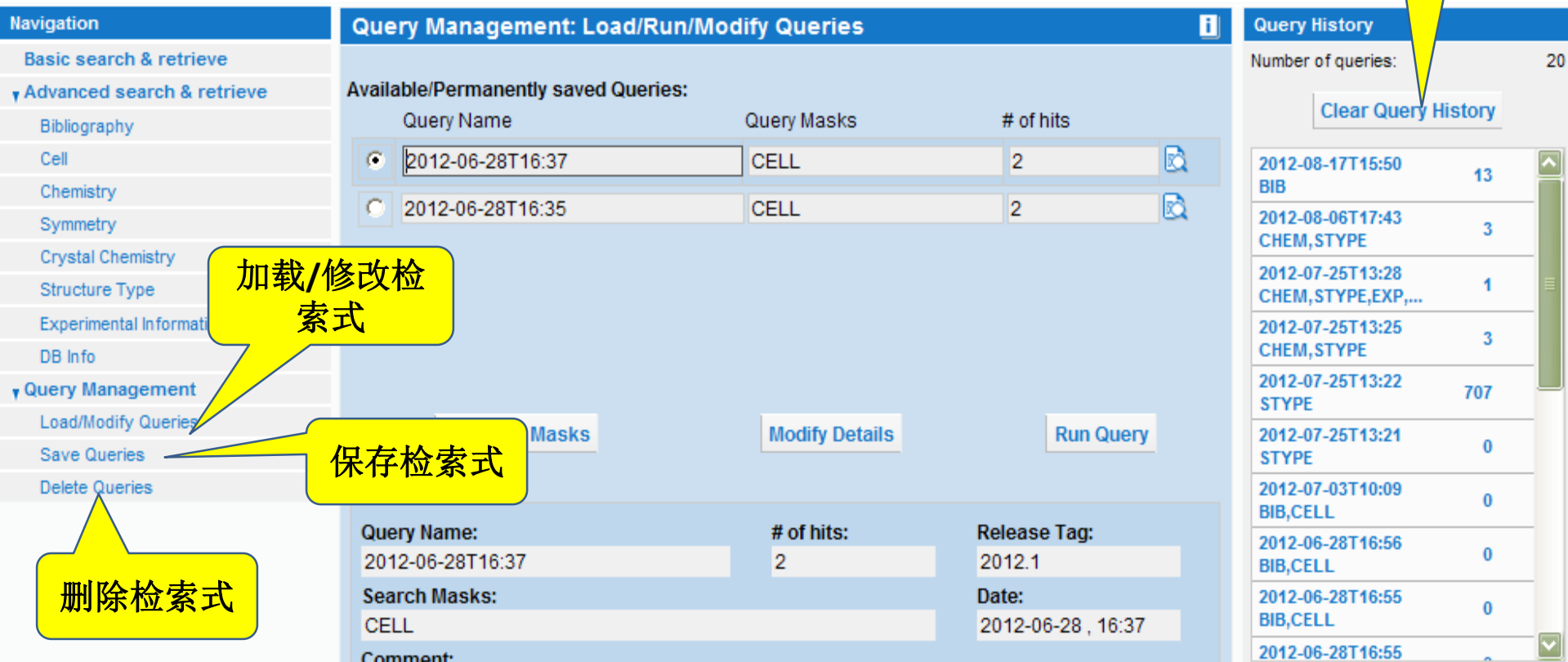
## Details

[Expand All](#) [Collapse All](#)

- ▶ Visualization
- ▶ Chemistry
- ▶ Published Crystal Structure Data
- ▶ Standardized Crystal Structure Data
- ▶ Distances & Angles
- ▶ Bibliography
- ▶ Experimental Information
- ▶ Warnings & Comments
- ▶ Compare Published & Standardized Structure

# 检索式管理

检索历史  
列表



The screenshot displays the 'Query Management: Load/Run/Modify Queries' interface. It features a navigation sidebar on the left, a main table of available queries, and a 'Query History' panel on the right. Annotations in yellow callouts point to specific UI elements: '加载/修改检索式' (Load/Modify Query) points to the 'Load/Modify Queries' button; '保存检索式' (Save Query) points to the 'Save Queries' button; '删除检索式' (Delete Query) points to the 'Delete Queries' button; and '检索历史列表' (Query History List) points to the 'Query History' panel.

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**Query Management: Load/Run/Modify Queries**

Available/Permanently saved Queries:

Query Name	Query Masks	# of hits
<input checked="" type="radio"/> 2012-06-28T16:37	CELL	2
<input type="radio"/> 2012-06-28T16:35	CELL	2

Buttons: Masks, Modify Details, Run Query

Query Name: 2012-06-28T16:37    # of hits: 2    Release Tag: 2012.1  
Search Masks: CELL    Date: 2012-06-28, 16:37  
Comment:

**Query History**

Number of queries: 20

Clear Query History

2012-08-17T15:50 BIB	13
2012-08-06T17:43 CHEM,STYPE	3
2012-07-25T13:28 CHEM,STYPE,EXP,...	1
2012-07-25T13:25 CHEM,STYPE	3
2012-07-25T13:22 STYPE	707
2012-07-25T13:21 STYPE	0
2012-07-03T10:09 BIB,CELL	0
2012-06-28T16:56 BIB,CELL	0
2012-06-28T16:55 BIB,CELL	0
2012-06-28T16:55	0

谢谢！