

# 专业助力创新

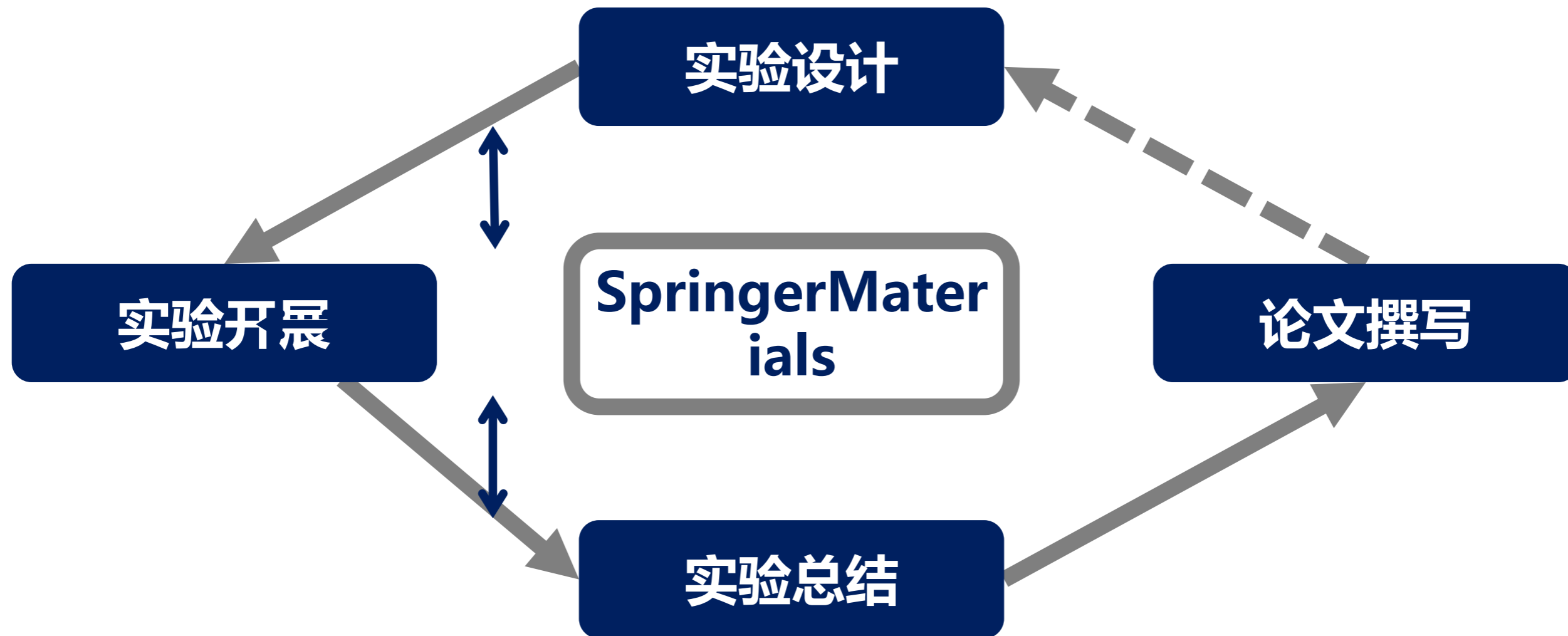
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樊亚芳



- ◆ SpringerMaterials数据库以Landolt-Börnstein科学与技术数值数据和函数关系丛书（简称**LB丛书**）为基础，是最大的材料学及物理和化学数据资源，是一个独特的**高质量数值型**数据库，内容涵盖了**精选的、经过严格评估的**材料物理化学和工程科学的各个领域的数据。这些数据使科学家们可以**快速**访问物质特性、函数关系以及数值数据，从而节省了宝贵的科研时间

- ◆多种检索途径（快速、元素周期表和结构检索）
- ◆经过深度加工的数据整合
- ◆按性质聚类和精炼检索结果
- ◆提供用于原始数据筛选的滑动条
- ◆拥有精确坐标的相图
- ◆三维交互式结构



快速检索

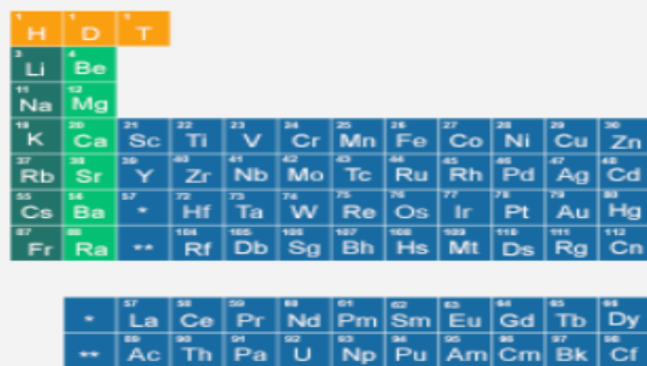
## Providing access to numerical and graphical data on the properties of materials

from the Landolt-Börnstein New Series, the Linus Pauling File, and the International Union of Pure and Applied Chemistry (IUPAC) Periodic Table of Elements

元素周期表检索

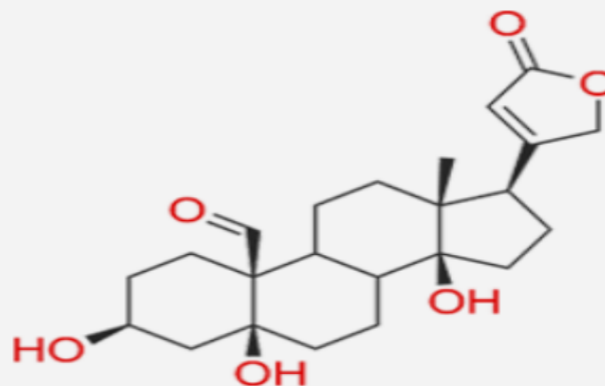
结构检索

### Search by elements



A periodic table of elements with some elements highlighted in green and orange. The highlighted elements include H, D, T, Li, Be, Na, Mg, Ca, Sr, Ba, Ra, K, Rb, Cs, Fr, Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, and the lanthanide and actinide series.

### Search by structure



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<input type="checkbox"/> Atomic Distance	1
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## 23 Result(s) for 'graphene'

◀ Page 1 of 2 ▶

### Carbon Nanomaterials: A Review

The present chapter explored the advancement of research in carbon nanomaterials (**graphene** and carbon nanotubes), in the areas of synthesis, properties and applications including el...

### Raman Spectroscopy for Characterization of Graphene

This chapter reviews recent progress in Raman spectroscopic characterization of **graphene**, a two-dimensional hexagonal crystal of carbon atoms. Raman spectroscopy is a spectroscopic tool to probe...

### Mechanical Characterization of Graphene

The emergence of monolayer carbon atom sheets, **graphene**, as a next generation advanced material, has potential applications in promising fields such as composite materials and energy storage.

## Carbon Nanomaterials: A Review

### Abstract

The present chapter explored the advancement of research in carbon nanomaterials (graphene and carbon nanotubes), in the areas of synthesis, properties and applications including electronics, field emission, biological and energy applications. The reported properties and applications of these carbon nanomaterials have opened up new opportunities for the future devices and materials. The knowledge presented here should lead to a better understanding of the key factors that can influence the future research directions.

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#### Title

Carbon Nanomaterials: A Review


#### Book Title

Handbook of Nanomaterials Properties

#### Book DOI

10.1007/978-3-642-31107-9


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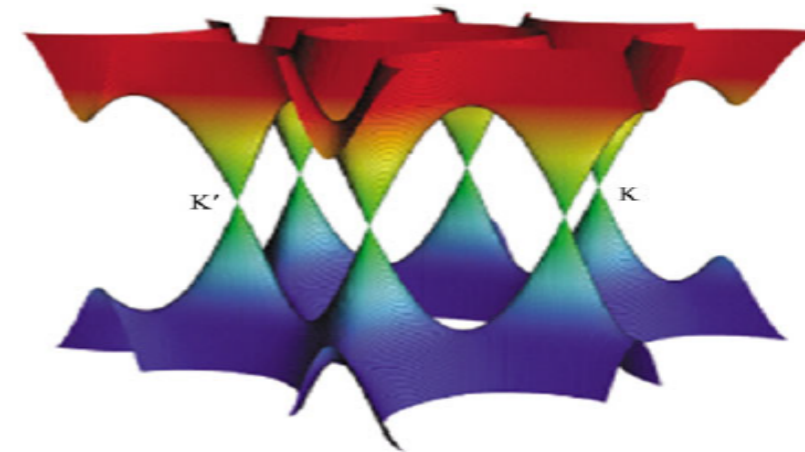
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Bookmarks

- 21 Carbon Nanomaterials: A Review
  - Introduction
  - Properties of Carbon Nanomaterials
    - Properties of Carbon Nanotubes (CNTs)
      - Electrical Properties
      - Mechanical Properties
      - Thermal Properties
    - Properties of Graphene
      - Mechanical Properties of Graphene
      - Electrical Properties of Graphene
      - Thermal Properties of Graphene
  - Synthesis of Carbon Nanomaterials
    - Synthesis of CNT
      - Arc Discharge
      - Laser Ablation
      - Chemical Vapor Deposition
    - Synthesis of Graphene
      - Thermal CVD
      - PECVD
      - SiC Sublimation
      - Exfoliation
      - Others
  - Applications of Carbon Nanomaterials
    - Carbon Nanotubes (CNTs)

**Fig. 21.11** Electronic band structure of single-layer graphene (Reprinted with permission from Katsnelson et al. [72]. Copyright (2007): Elsevier)



### Electrical Properties of Graphene

One of the hottest areas of graphene research focuses on the intrinsic electronic properties as how electrons flow through a one-atom-thick sheet under the influence of various external forces [70, 71]. Graphene is great conductor, and thereby electrons are able to flow through graphene more easily than through even copper. The electrons travel through the graphene sheet as if they carry no mass, as fast as just one hundredth that of the speed of light. Single-layer graphene (SLG) is unique in electronic structure, as it shows band overlap in two conical points (K and K') in the Brillouin zone (Fig. 21.11) [72]. The charge carriers in this structure, known as massless Dirac fermions, are electrons losing their rest mass,  $m_0$ , and can best be described by (2 + 1)-dimensional Dirac equations. Thus, SLG is expected to show some unusual properties, as compared with metals and semiconductors and typical of a semimetal. Single-layer graphene exhibits a strong ambipolar electric field



## Raman Spectroscopy for Characterization of Graphene

### Abstract

This chapter reviews recent progress in Raman spectroscopic characterization of graphene, a two-dimensional hexagonal crystal of carbon atoms. Raman spectroscopy is a spectroscopic tool to probe scattering of light by phonons in graphene and used to study the structural and electronic properties. Crystal structure and band structure of graphene is explained. Raman spectra of graphene and graphite are shown. A typical confocal micro-Raman spectroscopy system is shown. Polarized Raman spectroscopy has proven to be a powerful tool in the study of the properties of graphene. Uniaxial strain breaks the in-plane isotropy and produces many interesting effects. The most important application of Raman spectroscopy in graphene research is to estimate the number of graphene layers. The interference effect can be quantitatively analyzed using a multireflection model (MRM) of the Raman scattered light. Controlling the charge carrier type and density is a key to electronic device application of graphene. Unlike most solids, graphene has a negative thermal expansion coefficient near the room temperature. Uniaxial or biaxial strain applied to a sheet of graphene alters the interatomic distance and modifies the crystal structure, two of the fundamental parameters that determine the properties of graphene. Since an edge of a graphene sample is a kind of a line defect, it induces defect mediated Raman scattering. Raman spectroscopy has proven to be an invaluable tool in graphene research owing to the unique features of graphene's physical properties.



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### ► References (59)



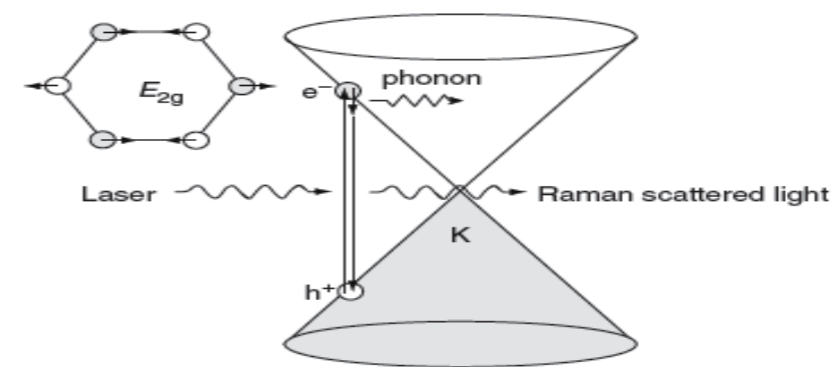
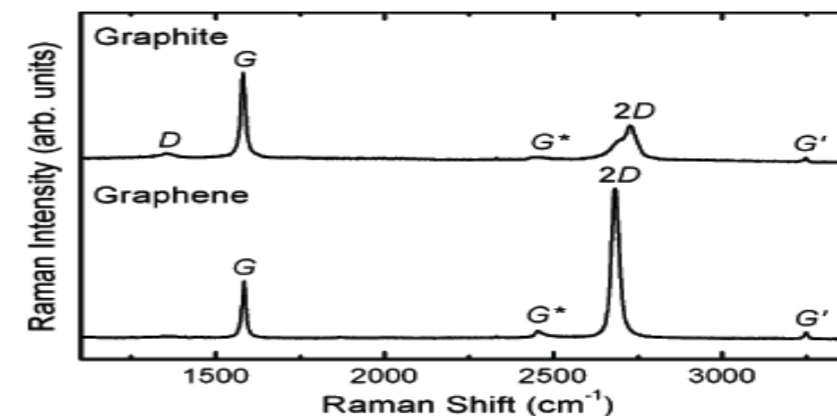
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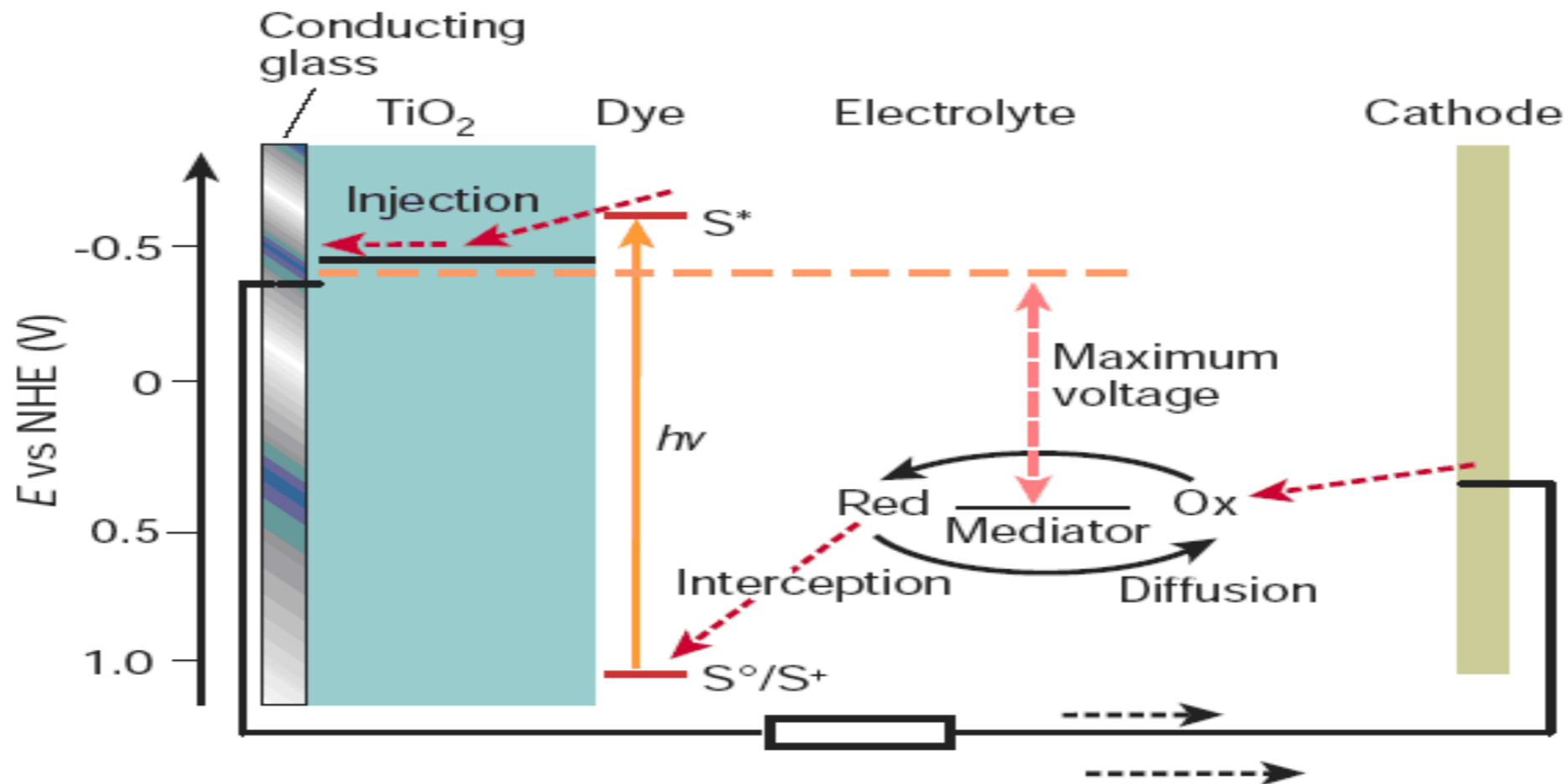
- 9 Raman Spectroscopy for Characterization of Graphene
  - 1 Definition of the Topic
  - 2 Overview
  - 3 Introduction
    - 3.1 Graphene
    - 3.2 Crystal Structure
    - 3.3 Band Structure
    - 3.4 Raman Scattering in Graphene
  - 4 Experimental and Instrumental Methodology
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    - 5.5 Strain Effect
    - 5.6 Edges
    - 5.7 Stacking
  - 6 Conclusions and Future Perspective
  - References

**Fig. 9.6** Raman spectra of graphene and graphite



**Fig. 9.7** Vibration of  $E_{2g}$  phonon mode and the resonant Raman scattering process for the G band

## ◆染料敏化太阳能电池中TiO<sub>2</sub>的电子传递性能



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TiO<sub>2</sub> "transport properties" More search tools

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**检索式 : TiO<sub>2</sub> "transport properties"**

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Data Source	
<input type="checkbox"/> Landolt-Börnstein	13

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Properties	
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<input type="checkbox"/> Absorption Coefficient	1
<input type="checkbox"/> Activation Energy Of Resistivity	1

**13 Result(s) for 'TiO<sub>2</sub> "transport properties"'**

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Landolt-Börnstein - Group III Condensed Matter

**Titanium oxide (TiO<sub>2</sub>): transport properties in stoichiometric TiO<sub>2</sub> (rutile)**

This document is part of Subvolume D 'Non-Tetrahedrally Bonded Binary Compounds II' of Volume 41 'Semiconductors' of Landolt-Börnstein - Group III Condensed Matter. Titanium oxide (Ti...

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Landolt-Börnstein - Group III Condensed Matter

**Titanium oxide (TiO<sub>2</sub>): physical properties of anatase**

This document is part of Subvolume D 'Non-Tetrahedrally Bonded Binary Compounds II' of Volume 41 'Semiconductors' of Landolt-Börnstein - Group III Condensed Matter. Titanium oxide (Ti...

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Landolt-Börnstein - Group III Condensed Matter



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substance: titanium oxide (TiO<sub>2</sub>)

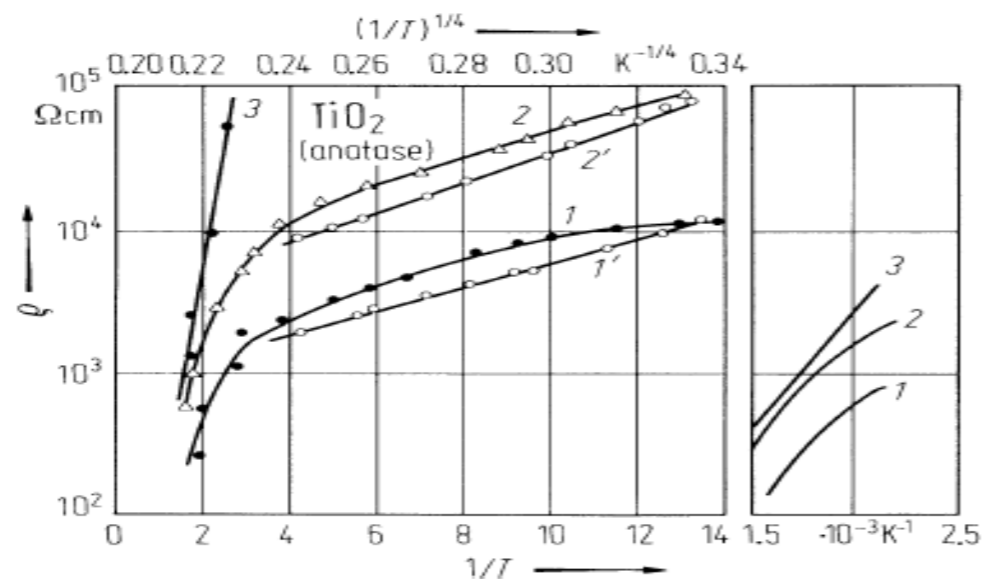
property: physical properties of anatase

energy gap

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Ho **Fig. 5.**

TiO<sub>2</sub>. Electrical resistivity of anatase modification vs. temperature. Curves 1...3:  $\rho$  vs.  $10^3/T$  for three (unoriented) samples of differing dopant level; curves 1', 2':  $\rho$  vs.  $(1/T)^{1/4}$  for the two (unoriented) samples of lower resistivity [78V].



## Search by Elements

Search for information by element system

1 H	2 He	3 Li	4 Be																	10 Ne
11 Na	12 Mg																	18 Ar		
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr			
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe			
55 Cs	56 Ba	*	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn			
87 Fr	88 Ra	**	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113	114	115	116	117	118			

*	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
**	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

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### Your Selection

Al-O

3504 Matching element systems

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- Al-Au-O (3)
- Al-B-O (27)
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- Al-Br-O (3)
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## 232 Result(s) for 'Al-O'

Page 1 of 12

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### Al-O Binary Phase Diagram Evaluation

Phase diagrams, crystallographic and thermodynamic data

The Al-O system is a part of industrially important... Review of experimental data for the Al-O system is presented in [

MSI Eureka

### Phase diagram of the Al-O system

Temperature: 427...3727 °C

Concentration Range: Al conc. [100-0 at.%] / O conc. [0-100 at.%]

Part of report on 'Al-O Binary Phase Diagram Evaluation'

MSI Eureka

### Temperature - composition phase diagram of the Al-O system

Temperature: 427...3727 °C

Concentration Range: Al conc. [100-0 at.%] / O conc. [0-100 at.%]

Part of report on 'Al-Fe-O Ternary Phase Diagram Evaluation'

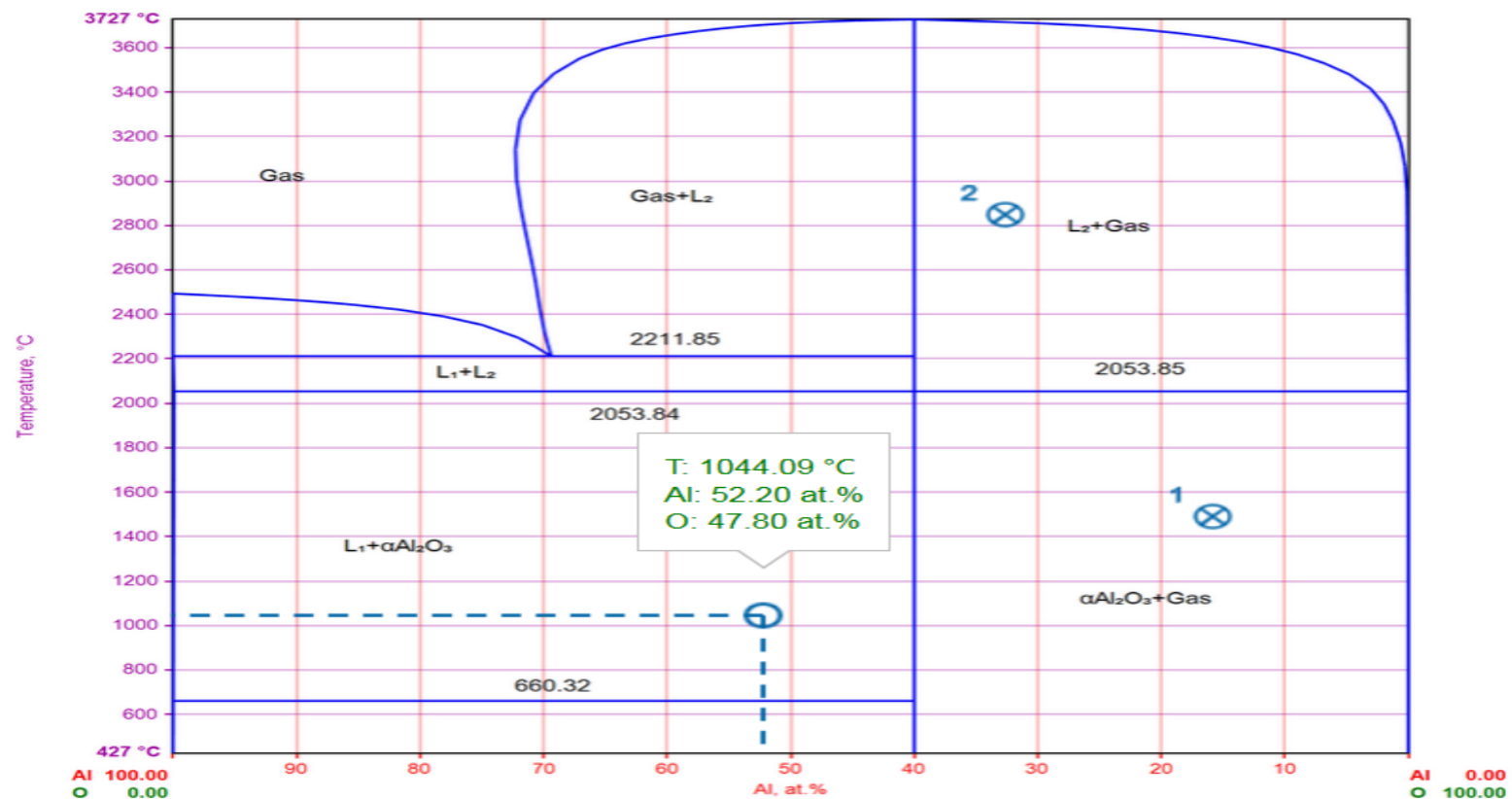
Landolt-Börnstein - Group III Condensed Matter

### Al<sub>2</sub>O<sub>3</sub> γ

This document is part of Subvolume A9 'Structure Types. Part 9: Space Groups (148) R-3 - (141) I41' of Volume 43 'Crystal Structures of Inorganic Compounds' of Landolt-Börnstein - Group III 'Condensed Matter'.



# 拥有精确坐标的交互式相图



Al 100.00  
O 0.00

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Fig. 1: Phase diagram of the Al-O system

Al 0.00  
O 100.00

## Recorded Points

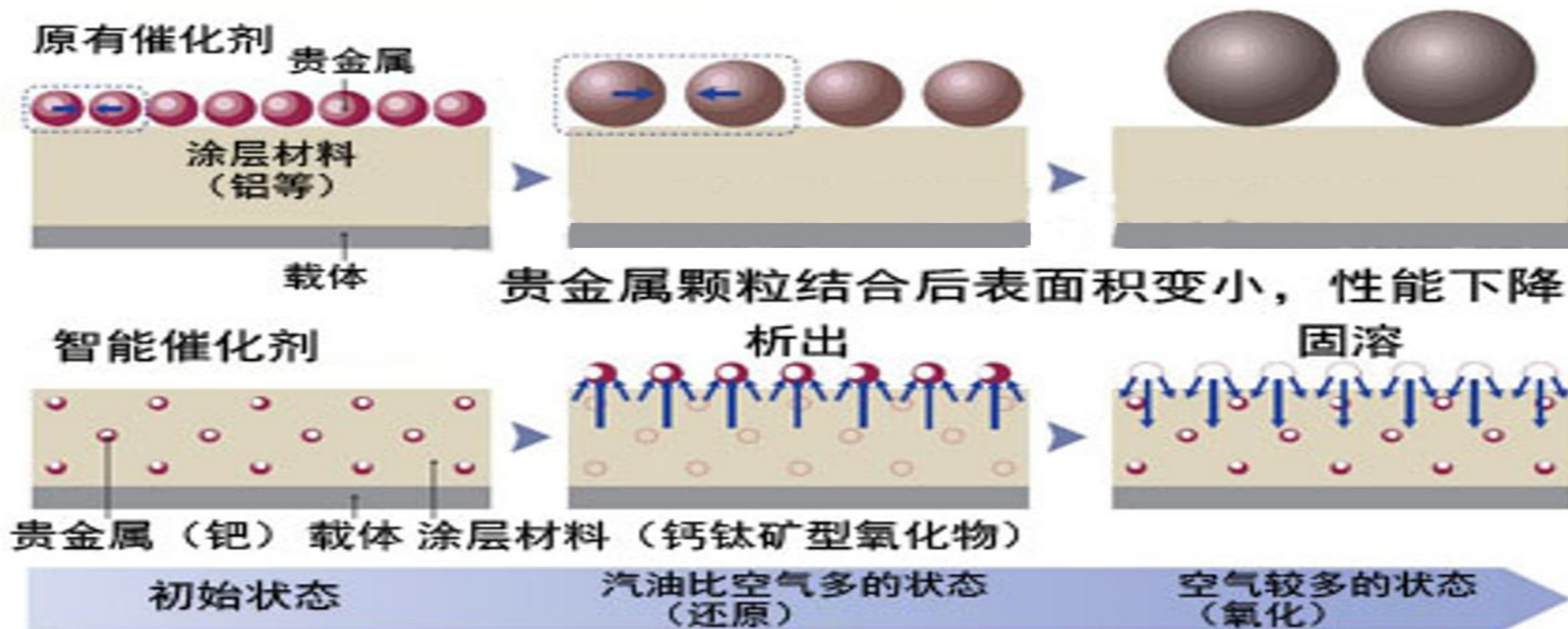
### Point 1

T: 1488.98 °C  
Al: 15.84 at.%  
O: 84.16 at.%

### Point 2

T: 2845.88 °C  
Al: 32.62 at.%  
O: 67.38 at.%

## ◆用于汽车尾气净化的“智能催化剂” ( $\text{LaFePdO}_3$ )



## Search by Elements

Search for information by element system

1 H	1 D	1 T																				2 He	
3 Li	4 Be													5 B	6 C	7 N	8 O	9 F	10 Ne				
11 Na	12 Mg													13 Al	14 Si	15 P	16 S	17 Cl	18 Ar				
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr						
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe						
55 Cs	56 Ba	*	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn						
87 Fr	88 Ra	**	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113	114	115	116	117	118						

*	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
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Fe-La-O-Pd

2 Matching element systems

[Fe-La-O-Pd \(1\)](#)

[Co-Fe-La-O-Pd \(1\)](#)

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Atomic Environment 1

Atomic Position 1

Cell Volume 1

Pearson Symbol 1

Positional Coordinate 1

Space Group 1

Unit Cell Axes 1

Unit Cell Parameter 1

Wyckoff Sequence 1

x-Ray Density 1

## 1 Result(s) for 'Fe-La-O-Pd'

◀ Page 1 of 1 ▶

Inorganic Solid Phases

### LaFe<sub>0.954</sub>Pd<sub>0.046</sub>O<sub>3</sub> Crystal Structure

Element system Fe-La-O-Pd, Phase prototype CaTiO<sub>3</sub>, Space group *cP5*, 221

Data on Cell parameters, Published and standardized atom coordinates

◀ Page 1 of 1 ▶

Inorganic Solid Phases

## LaFe<sub>0.954</sub>Pd<sub>0.046</sub>O<sub>3</sub> Crystal Structure



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### General Information

Phase Label(s): LaFe<sub>0.954</sub>Pd<sub>0.046</sub>O<sub>3</sub>

Structure Class(es): perovskite

Classification by Properties: –

Mineral Name(s): –

Pearson Symbol: *cP5*

Space Group: 221

Phase Prototype: CaTiO<sub>3</sub>

Measurement Detail(s): automatic diffractometer (determination of cell parameters), X-rays, Cu K $\alpha$  (determination of cell parameters)

Phase Class(es): –

Compound Class(es): oxide

Interpretation Detail(s): cell parameters determined and type with fixed coordinates assigned

Sample Detail(s): sample prepared from La nitrate, Fe nitrate, PdCl<sub>2</sub>, malic acid, atomic absorption spectroscopy; 2.0 wt.% Pd, powder (determination of cell parameters)

### Substance Summary

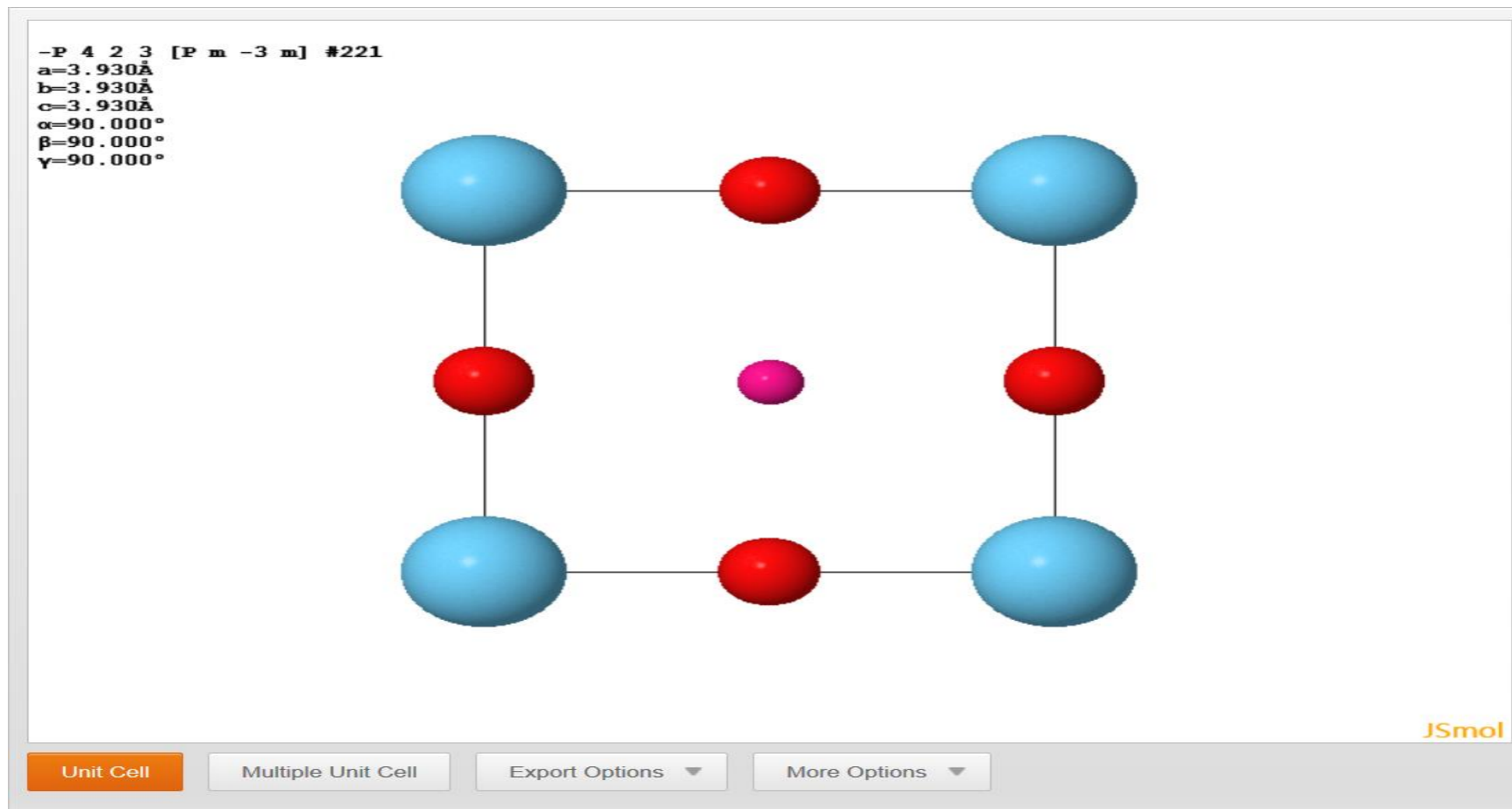
Standard Formula: LaFe<sub>0.954</sub>Pd<sub>0.046</sub>O<sub>3</sub>

Alphabetic Formula: Fe<sub>0.954</sub>LaO<sub>3</sub>Pd<sub>0.046</sub>

Published Formula: LaFe<sub>0.954</sub>Pd<sub>0.046</sub>O<sub>3</sub>

Refined Formula: Fe<sub>0.95</sub>LaO<sub>3</sub>Pd<sub>0.05</sub>

Wyckoff Sequence: 221,dba



## ▼ Crystallographic Data

## Cell Parameters

Cell Parameters	Published Data	Standardized Data	
		Unit Cell	Niggli-Reduced Cell
Space Group	<i>Pm-3m</i> (221)	<i>Pm-3m</i> (221)	–
<i>a</i>	0.393 nm	0.393 nm	0.393 nm
<i>b</i>	0.393 nm	0.393 nm	0.393 nm
<i>c</i>	0.393 nm	0.393 nm	0.393 nm
$\alpha$	90°	90°	90.°
$\beta$	90°	90°	90.°
$\gamma$	90°	90°	90.°
<i>a/b</i>	1.000	1.000	1.000
<i>b/c</i>	1.000	1.000	1.000
<i>c/a</i>	1.000	1.000	1.000

## ▼ Atom Coordinates

### Standardized

Site	Element	Wyckoff Symbol	Symmetry	X	Y	Z	Occupation	Co-Ord. No.	Atomic Env.
O	O	3d	4/mm.m	1/2	0	0	1	2	collinear, La <sub>2</sub>
Fe,Pd	0.954Fe + 0.046Pd	1b	m-3m	1/2	1/2	1/2	1	12	cuboctahedron, O <sub>12</sub>
La	La	1a	m-3m	0	0	0	1	6	octahedron, O <sub>6</sub>

Transformation from Published to Standardized: No transformation from published to standardized cell parameters necessary.

### Published

Site	Element	Wyckoff Symbol	Symmetry	X	Y	Z	Occupation
La	La	1a	m-3m	0	0	0	1
Fe,Pd	0.954Fe + 0.046Pd	1b	m-3m	1/2	1/2	1/2	1
O	O	3d	4/mm.m	1/2	0	0	1



## ▼ Experimental Details

### Sample Details

analysis	atomic absorption spectroscopy; 2.0 wt.% Pd
samples	powder (determination of cell parameters)

### Measurement Details

methods	automatic diffractometer (determination of cell parameters)
radiation	X-rays, Cu K $\alpha$ (determination of cell parameters)

### Interpretation Details

investigation	cell parameters determined and type with fixed coordinates assigned
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## ▼ Reference

Koponen M.J., Suvanto M., Pakkanen T.A., Kallinen K., Kinnunen T.J.J., Härkönen M.: *Synthetic studies of ABB'O<sub>3</sub> (A= La, Pr, Nd; B= Fe, Mn; B'= Pd, Pt) perovskites*. *Solid State Sciences* **7** (2005) 7-12


# 元素周期表检索 ( Fe-La-O-Pd )

## Search by Elements

Search for information by element system

1 H	2 He	3 Li	4 Be	5 B	6 C	7 N	8 O	9 F	10 Ne	11 Na	12 Mg	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe	55 Cs	56 Ba	* La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	** Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113	114	115	116	117	118																		

* La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
** Ac	89 Th	90 Pa	91 U	92 Np	93 Pu	94 Am	95 Cm	96 Bk	97 Cf	98 Es	99 Fm	100 Md	101 No	102 Lr

 = No results in SpringerMaterials when combined with your selection

**Your Selection**  
Fe-La-O-Pd

**2 Matching element systems**

[Fe-La-O-Pd \(1\)](#)

[Co-Fe-La-O-Pd \(1\)](#)

Reset

Inorganic Solid Phases

## LaFe<sub>0.57</sub>Co<sub>0.38</sub>Pd<sub>0.05</sub>O<sub>3</sub> Crystal Structure

 **Download Data**  
CIF File

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### General Information

Phase Label(s): LaFe<sub>0.57</sub>Co<sub>0.38</sub>Pd<sub>0.05</sub>O<sub>3</sub>

Structure Class(es): perovskite

Classification by Properties: –

Mineral Name(s): –

Pearson Symbol: *cP5*

Space Group: 221

Phase Prototype: CaTiO<sub>3</sub>

Measurement Detail(s): automatic diffractometer (determination of cell parameters), X-rays, Cu K $\alpha$  (determination of cell parameters)

Phase Class(es): –

Compound Class(es): oxide

Interpretation Detail(s): cell parameters determined and type with fixed coordinates assigned



























### ▼ Reference

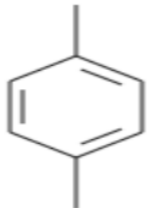
Koponen M.J., Suvanto M., Kallinen K., Kinnunen T.J.J., Härkönen M., Pakkanen T.A.: *Structural transformations in cubic structure of Mn/Co perovskites in reducing and oxidizing atmospheres*. Solid State Sciences **8** (2006) 450–456

# 结构检索：对二甲苯 (PX)

## Search by Structure

Start by drawing a structure

Reset															InfoChem
															



[Search](#)

# 结构检索结果 ( 相似度排序 )

701 Result(s) for this structure

Page 1 of 36

## 1,4-Dimethyl-Benzene

Molecular Formula: C<sub>8</sub>H<sub>10</sub>

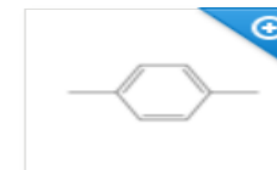
Molecular Mass: -

CAS-No: 106-42-3

快速检索

InChI: InChI=1S/C8H10/c1-7-3-5-8(2)6-4-7

InChI Key: /LBVBO-UHFFFAOYSA-N



100 % match

[» View substance profile](#)

[» Search for this substance](#)

物质概况

## 4-Methyl-

Molecular Formula: C<sub>9</sub>H<sub>8</sub>

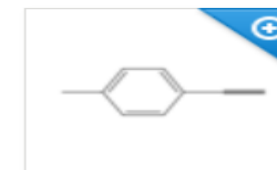
Molecular Mass: -

CAS-No: 766-97-2

InChI: InChI=1S/C9H8/c1-3-9-6-4-8(2)5-7-9

/h1,4-7H,2H3

InChI Key: KSZVOXHGCKKOLL-UHFFFAOYSA-N



91 % match

[» View substance profile](#)

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## 4-Methyl-Benzonitrile

Molecular Formula: C<sub>8</sub>H<sub>7</sub>N

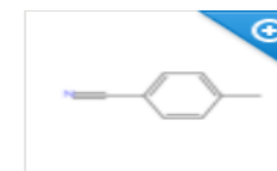
Molecular Mass: -

CAS-No: 104-85-8

InChI: InChI=1S/C8H7N/c1-7-2-4-8(6-9)5-3-7

/h2-5H,1H3

InChI Key: VCZNNAKNUVJVGX-UHFFFAOYSA-N



90 % match

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Substance Profile

## 1,4-Dimethylbenzene

### General information

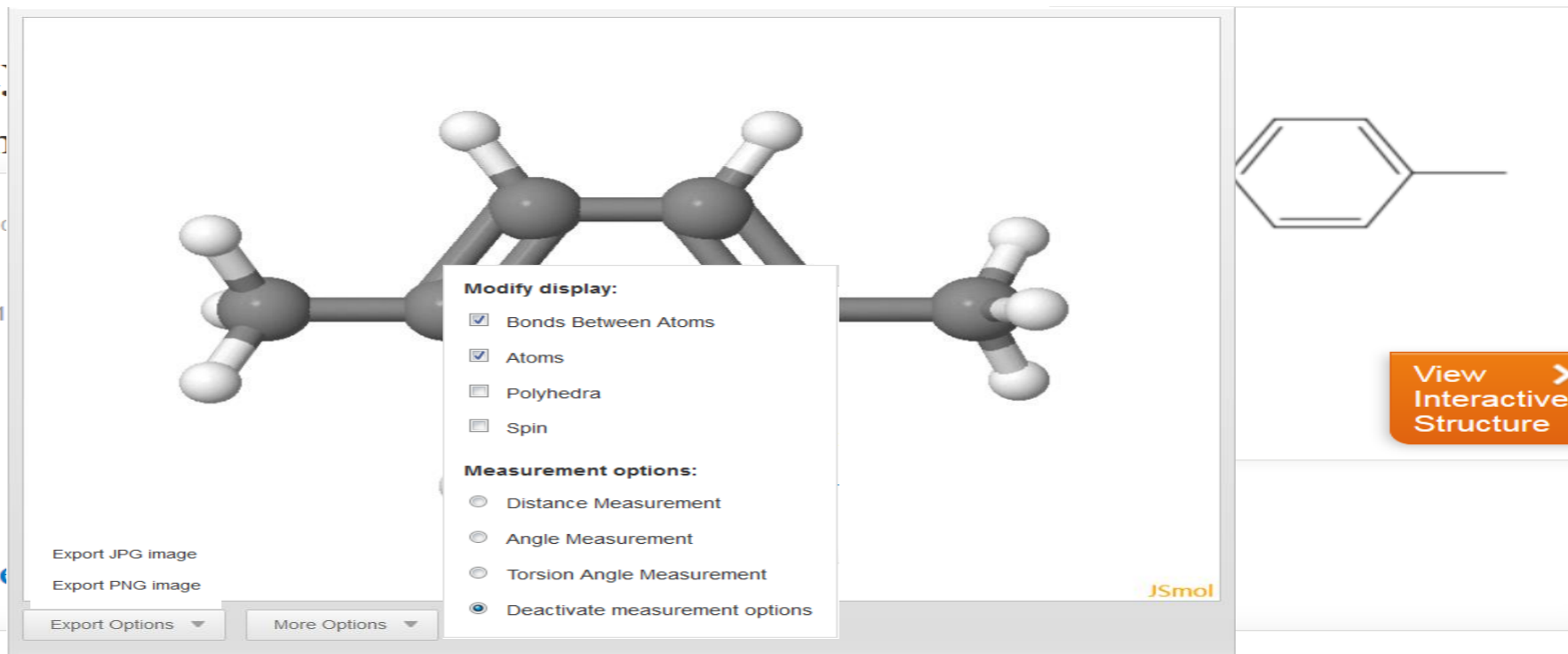
Molecular Formula:  $C_8H_{10}$

Element System: C-H

CAS-RN: 106-42-3

InChI: InChI=1S/C8H10/c1

### 3D Interactive



### Information on Springer Materials

Properties frequently appearing with 1,4-dimethylbenzene

» Osmotic Pressure (167)

» Vapor-Liquid Equilibrium (151)

» Excess Volume (99)

» Heat Of Mixing (91)

» Excess Enthalpy (91)

» Polarization Degree (9)

» Luminescence Emission Linewidth (9)

» Luminescence (9)

» Diffusion (8)

» Chemical Diffusion (8)

» Angular Frequency (1)

» Transition Enthalpy (1)

» Internuclear Distance (1)


» Differential Scanning Calorimetry (1)

» Phase Transition Temperature (1)

## ▼ Vapor Pressure of p-Xylene

**Filter data by:**  
Temperature [K] :

286.44 — 618.15



Hide Filter Tools

Temperature $T$ [K]	Vapor Pressure $p$ [kPa]	State	Reference
286.44	0.582	<a href="#">Vapor-Liquid</a>	<a href="#">16. Osborn (1974)</a>
288.15	0.649	<a href="#">Vapor-Liquid</a>	<a href="#">16. Osborn (1974)</a>
290.62	0.755	<a href="#">Vapor-Liquid</a>	<a href="#">16. Osborn (1974)</a>

## ▼ References (102)

1. Panchenkov G.M., Maksareva T.S., Erchenkov V.V.: Temperature Dependence of Diffusion Coefficients of Some Organic Liquids. Zh.Fiz.Khim. 32 (1958) 2787-2791
2. Ambrose D., Broderick B.E., Townsend R.: The vapour pressures above the normal boiling point and the critical pressures of some aromatic hydrocarbons. J.Chem.Soc.A (1967) 633-641

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<input type="checkbox"/> Solid-State Physics	53
<input type="checkbox"/> Thermodynamics	547

#### Properties

<input type="checkbox"/> 13c Nuclear Magnetic Resonance Spectrum	1
<input type="checkbox"/> Acentric Factor	1

701 Result(s)

Substance: **1,4-dimethyl-benzene** 

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Landolt-Börnstein - Group II Molecules and Radicals

## Diamagnetic bulk susceptibility data of $C_8H_{10}$

This document is part of Subvolume B 'Diamagnetic Susceptibility of Organic Compounds, Oils, Paraffins and Polyethylenes' of Volume 27 'Diamagnetic Susceptibility and Anisotropy' of Landolt-Börnstein - Group...

Landolt-Börnstein - Group IV Physical Chemistry

## Dielectric constant of the mixture (1) 2-methoxyaniline; (2) 1,4-dimethylbenzene

This document is part of Volume 17 'Static Dielectric Constants of Pure Liquids and Binary Liquid Mixtures (Supplement to IV/6)' of Landolt-Börnstein Group IV 'Physical Chemistry'.

Thermophysical Properties

## Tetrachloromethane-p-Xylene Excess Volume



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TiO<sub>2</sub>

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**Refine Your Search** 588 Result(s) for 'TiO<sub>2</sub>'

**Data Source**

- Inorganic Solid Phases 345

**Properties**

- Atomic Fraction 1
- Atomic Position 222
- Band Gap 51
- Band Gap Energy 2
- Band Notation 1
- Band Structure 41**
- Binding Energy 2
- Bond Type 3
- Bragg Reflection 2
- Breakdown Field 1
- Brillouin Scattering 3

Page 1 of 30

Landolt-Börnstein - Group III Condensed Matter

[QRS Data for O<sub>2</sub>Ti \(Subst. No. 2454\)](#)

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[Thermodynamic Properties of Compounds, SbO<sub>2</sub> to Rh<sub>2</sub>O<sub>3</sub>](#)



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<input type="checkbox"/> Optics	39
<input type="checkbox"/> Solid-State Physics	41
<input type="checkbox"/> Thermodynamics	4

Properties	
<input checked="" type="checkbox"/> Band Structure	41
<input type="checkbox"/> Absorbance	1
<input type="checkbox"/> Absorption	13

**41 Result(s) for 'TiO2'**

Properties: **Band Structure**

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Landolt-Börnstein - Group III Condensed Matter

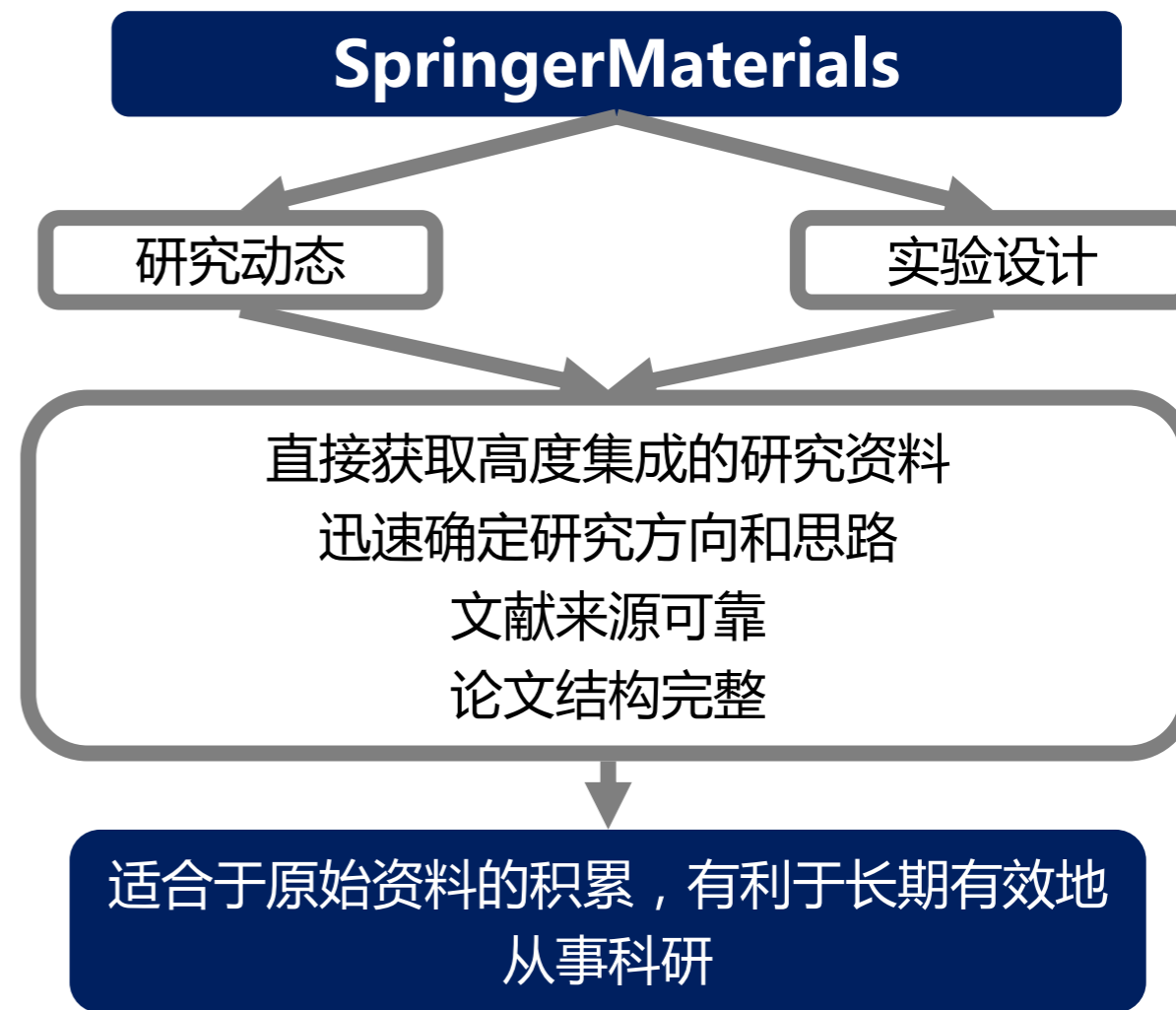
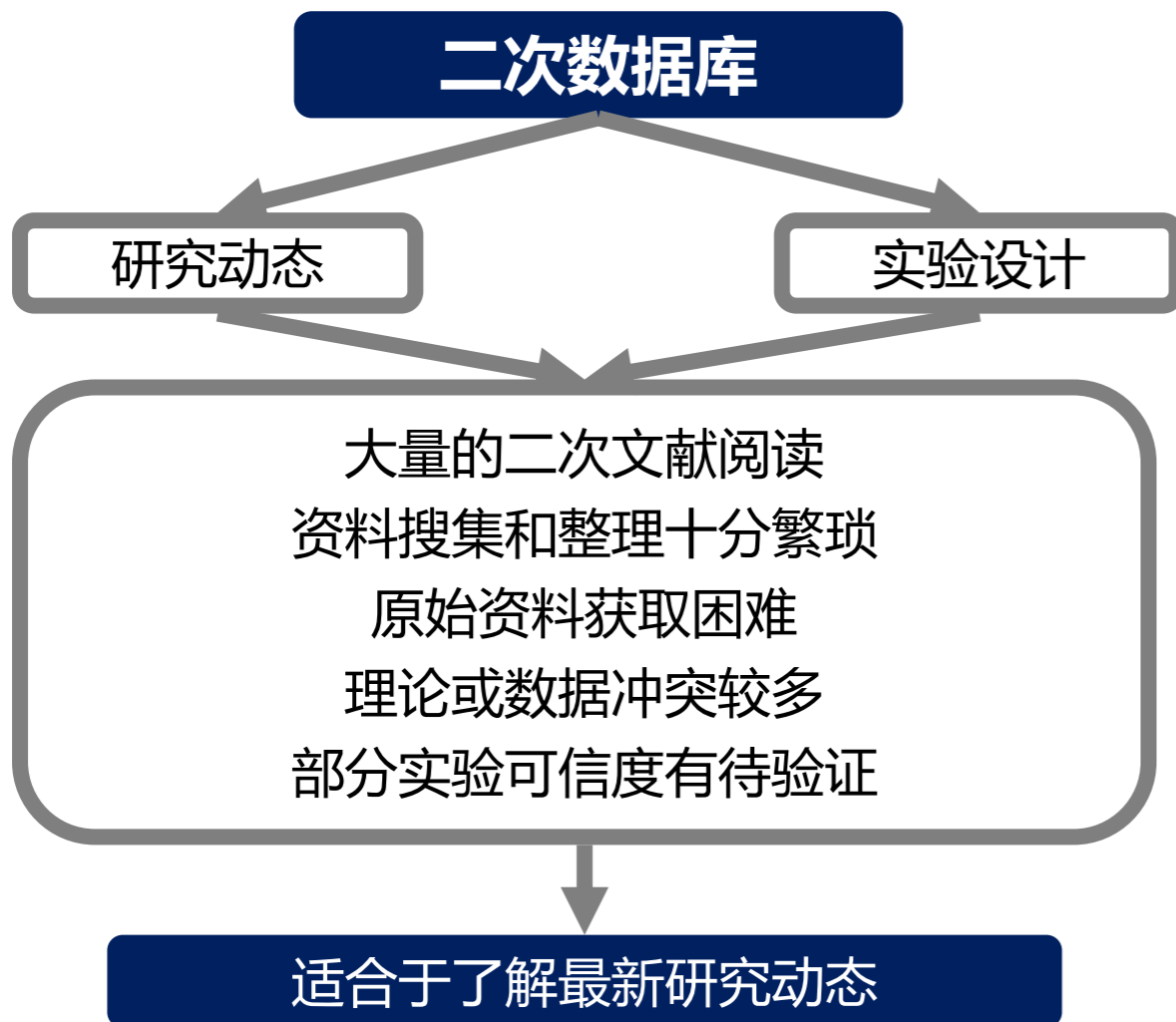
**Titanium oxide (TiO<sub>2</sub>): transport properties in stoichiometric TiO<sub>2</sub> (rutile)**

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Landolt-Börnstein - Group III Condensed Matter

**Titanium oxide (TiO<sub>2</sub>): physical properties of anatase**

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