

## Solid CrF<sub>3</sub> contains a Cr<sup>3+</sup> ion surrounded by

The violet hexaaquochromium(III) fluoride, [Cr(H<sub>2</sub>O)<sub>6</sub>]F<sub>3</sub>, and its trihydrate, [Cr(H<sub>2</sub>O)<sub>6</sub>]F<sub>3</sub> · 3H<sub>2</sub>O, can be obtained from hexaaquochromium(III) salt solutions and alkali fluorides. Products containing less water are green. ...

Question: 1 Predict the number of unpaired electrons for each of the following: a. a tetrahedral a ion b. [Co(H<sub>2</sub>O)<sub>6</sub>]<sup>2+</sup> c. [Cr(H<sub>2</sub>O)<sub>6</sub>]<sup>3+</sup> d. a square-planar d<sup>7</sup> ion e. a coordination compound with a magnetic moment of 5.1 Bohr magnetons. Show transcribed image text. Here's the ...

Solid CrF<sub>3</sub> contains a Cr<sup>3+</sup> ion surrounded by six F<sup>-</sup> ions in an octahedral geometry, all at distances of 190 pm. However, MnF<sub>3</sub> is in a distorted geometry, with Mn-F distances of 179, 191, and 209 pm (two of each). Explain Question 4 (2.5 points) When Werner turned his attention to platinum compounds ...

[Cu(en)<sub>2</sub>(H<sub>2</sub>O)<sub>2</sub>]<sup>2+</sup> e Question 3 (2.5 points) Solid CrF<sub>3</sub> contains a Cr<sup>3+</sup> ion surrounded by six F<sup>-</sup> ions in an octahedral geometry, all at distances of 190 pm. However, MnF<sub>3</sub> (Mn<sup>3+</sup>) is in a distorted geometry, with Mn-F distances ...

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A tetrahedral d<sup>6</sup> ion has 6 electrons in the d orbitals. In a tetrahedral complex, there is no crystal field splitting, so the electrons will fill the orbitals following Hund's rule.

Solid CrF<sub>3</sub> contains a Cr<sup>3+</sup> ion surrounded by six F<sup>-</sup> ions in an octahedral geometry. Your solution's ready to go! Enhanced with AI, our expert help has broken down your problem into an easy-to-learn solution you can count on.

VIDEO ANSWER: here is the structure of. See you NH 36 two plus complex the longest between the longest distance between two nitrogen atoms and give is given by two atoms bonded on the opposite sides of the...

a tetrahedral d<sup>6</sup> ion. [Co(H<sub>2</sub>O)<sub>6</sub>]<sup>2+</sup>. [Cr(H<sub>2</sub>O)<sub>6</sub>]<sup>3+</sup>. d. a square-planar d<sup>7</sup> ion. e. a coordination compound with a magnetic moment of 5.1 Bohr magnetons. Solid CrF<sub>3</sub> contains a Cr<sup>3+</sup> ion surrounded by six F<sup>-</sup> ions in an octahedral geometry, all at distances of 190 pm. However, MnF<sub>3</sub> is in a

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3. Explain why solid CrF<sub>3</sub> is octahedral at the Cr ion with a single Cr-F bond length of 1.90 Å; while MnF<sub>3</sub> is distorted 6-coordinate at the Mn ion and has three different Mn-F bond distances (1.79, 1.91 and 2.09 Å). [4 pts] Mn<sup>3+</sup> is a d<sub>4</sub> Jahn-Teller ion while Cr<sup>3+</sup> is a d<sub>3</sub> ion. The Jahn-Teller ion will

5. CHROMIUM(III) oxidation state chemistry and complexes Chromium forms the stable hexaaqua chromium(III) ion, [Cr(H<sub>2</sub>O)<sub>6</sub>]<sup>3+</sup> (aq). Electron configuration of the Cr<sup>3+</sup> ion is [Ar]3d<sup>3</sup>. The colour appears violet-blue-grey (some texts say red-violet?), but often looks green when produced in reactions, especially if chloride ions are present that can act as a ligand ...

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Question: 10.22 Solid CrF<sub>3</sub> contains a Cr(III) ion surrounded by six F- ions in an octahedral geometry, all at distances of 190 pm. However, MnF<sub>3</sub> is in a distorted geometry, with Mn-F distances of 179, 191, and 209 pm (two of each).

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Science; Chemistry; Chemistry questions and answers; I want you to do these, I need answers within 2-3 hours please. i need 100% correct answers

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Solid CrF<sub>3</sub> contains a Cr(III) ion surrounded by six F- ions in an Oh geometry all at distances of 1.90 Å; However, MnF<sub>3</sub> is in a distorted geometry, with Mn-F distances of 1.79, 1.91, and 2.09 Å (two of each). Suggest an explanation for this observation. How many spin-allowed bands do you expect for each complex?

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Web: <https://bardzyndzalek.olsztyn.pl>

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