

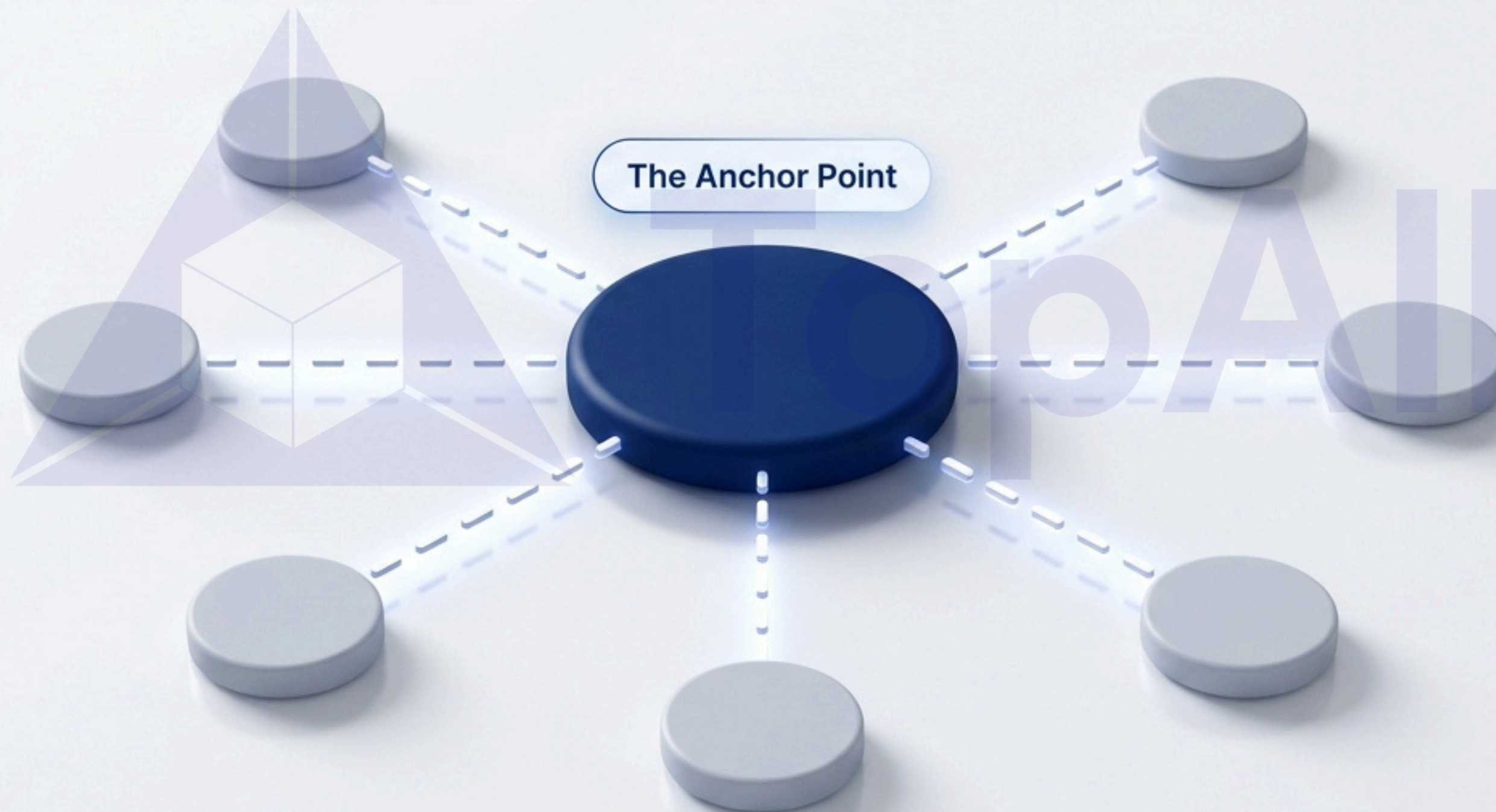
COORDINATION COMPOUNDS • SECTION 5.2B

The Central Atom/Ion

The Structural Anchor of Coordination Entities.

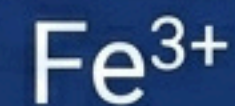
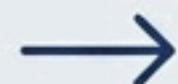
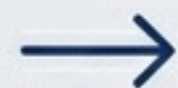
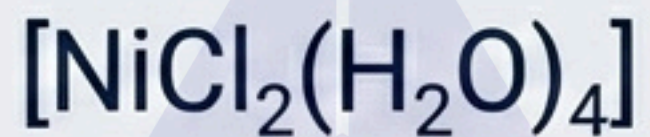
The Intuitive Role of the Central Ion

A coordination entity is not just a random cluster of elements; it is a highly structured physical system. At its absolute center sits the central atom or ion, acting as the fundamental load-bearing pillar to which all other groups attach.



Identifying the Central Ion

How to spot the core element within the square brackets of standard chemical formulas.





You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

Practice Now



At prep.topall.app

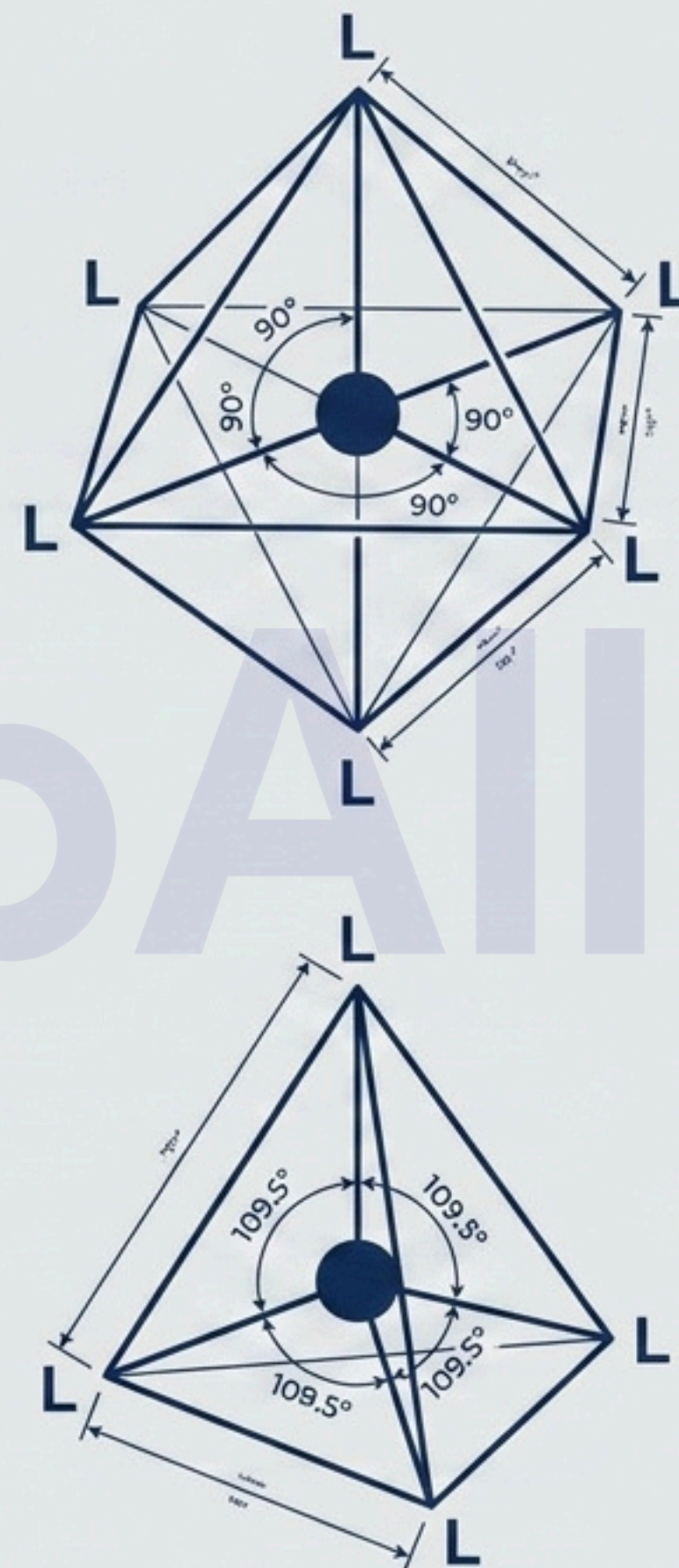
Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



Fixed Geometrical Arrangement

The surrounding ions or molecules do not attach randomly. They are bound to the central atom in a strictly defined, characteristic spatial architecture (such as an octahedron or tetrahedron).



The Role of a Lewis Acid

Why are these central metal ions referred to as Lewis acids? In simple terms, it describes their chemical job: they act as the ultimate electron acceptors.



[Ligand] = Electron Donor

[Central Ion] = Electron Acceptor
(Lewis Acid)

Key Takeaways

- ✓ The central ion acts as the structural anchor of the complex.
- ✓ It dictates a fixed, definite geometrical arrangement.
- ✓ It acts as a Lewis acid by accepting electron pairs.

Quick Check

Look at the formula:



In this entity, the Fe^{3+} ion functions as an electron acceptor, making it a _____.

Lewis acid



You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

Practicing MCQs gets you marks.

That's exactly what TopAll Pro is built for.

Try TopAll Pro Now

What TopAll Pro Does Differently

-  **Stuck? Snap it. Solve it. — Doubts AI**
Photo → step-by-step solution in seconds, 24/7
-  **Your AI Coach finds your blind spots**
Concept-level weakness detection — not just chapter-level
-  **4.5 Lakh+ questions. Never run out.**
13× more content than any other prep app in India
-  **Build your own test in 60 seconds**
Pick a chapter, set difficulty — AI does the rest instantly.
-  **AI Recommendation that helps you improve**
AI Recommendation Analysis your Tests and tell you where you need to improve.



Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

1.5L+
Students

AI Powered
In-Depth Analysis