AI Based Catalysis Informatics Framework Using JI Prolog/jCompound Mapper/JikesRVM/IoT Computing Environments – A Novel Insight into the Chemical Informatics World of Catalysis.

Nirmal Tej Kumar
Current Member : ante Inst,UTD,Dallas,TX,USA
Independent Consultant : Informatics/Nanotechnology/Photonics
R&D Collaborator : USA/UK/Israel/BRICS Group of Nations.
Email id : tejdk@gmail.com

Abstract :

As explained in the TITLE mentioned above, we intend to explore the informatics aspects of Catalysis using Java related technologies.

index words: AI/Catalysis/Java/IoT/JI Prolog/jCompoundMapper/Nanotechnology.
Introduction/Inspiration:

“Catalysis is the increase in the rate of a chemical reaction by the addition of a reagent — the catalyst — that is not itself consumed. The catalyst works by opening up a route between starting material and product with a lower activation barrier than the uncatalyzed process.” -

Source/s:

[a] https://www.nature.com/subjects/catalysis;

[b] https://www.nature.com/news/can-artificial-intelligence-create-the-next-wonder-material-1.19850


AI Based Catalysis Informatics Framework & Implementation:

![Diagram of AI Based Catalysis Informatics Framework using Java and other technologies.]

Figure 1: Approximate Informatics Framework Using Java and Other Technologies.
R&D Analysis & Conclusion/s:

We have shown a simple informatics framework to probe the frontiers of Catalysis & Nanotechnology domains. This is one of the pioneering technical notes using these aspects of Software and Concepts.

Additional Information on Mathematics & Software Used:


Acknowledgement/s:

Thanks to all who helped me with this technical note meant for NON-PROFIT ACADEMIC R&D Purpose/s. This is only an approximate framework to encourage others to explore the interesting computational domains of nanotechnology. We do not vouch for any specific application in any way.

References:


