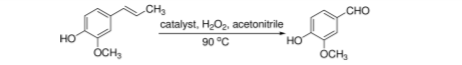
**Triyasha Ghosh Dastidar**

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# VANILLIN

Vanillin is a phenolic aldehyde . It is the primary component of the extract of the vanilla bean.It was traditionally made by Karl Reimer from guaiacol.However recent discovery of selective oxidation of isougenol over mechanochemically synthesized aluminosilicate supported transition metal catalysts.The ball milling process was used to prepare highly active transition metal oxide catalysts supported over mesoporous aluminosilicates They were used to produce vanillin by selectively oxidizing isougenol .The rate of isougenol conversion increases when some H2O2 is added to it as an oxidizing agent under mild conditions.Nb-catalysts provided the optimum selectivity/conversion when tested due to the synergistic effect between Fe/Nb and Al which is very necessary for activity in catalytic reactions.It was found out that materials could be again produced using calcination and could preserve a good enough activity.



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