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Corrigendum to "Recent advances in the industrial alkylation of aromatics: new catalysts and new processes" [Catalysis Today 73 (2002) 3-22]☆

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The authors regret that in the above article, a sentence in the 'Conclusions' section was incorrect. This section is now reproduced correctly, below.

Conclusions

For the aromatic alkylations accounting the largest productions, new solid catalysts and new processes conforming the environmental and safety concerns are currently available. Various solid catalysts based on different zeolites have been developed for the production of EB and cumene up to the industrial scale. The data available do not allow to easily ascertaining which the best catalyst is. In fact, zeolite Beta and MCM-22 are industrially employed in both cumene and EB production. Besides it has been demonstrated that, although zeolite structure is very important, zeolite composition and morphology are very critical and cannot be ignored in the alkylation catalyst formulation. The new technologies operate in the liquid-phase and showed to be very rewarding as far as the productivity and stability are concerned, so that a complete substitution of $AlCl_3$, HF and H_3PO_4 with solid acid catalysts is expected by 2010.

As far as cymene is concerned, a "green solution" based on a solid acid catalyst is also available, although the industrial stage has not been demonstrated so far. Beta zeolite and mesoporous alumina oxides are in this case the best catalysts ever tested, depending on the isomer composition desired.

Finally, the most recent achievement in the field of aromatic alkylations catalyzed by solid acids has been accomplished in LAB production. In this case also the technology has been industrially demonstrated and is now commercially available.

The new deal towards processes environmentally benign, which has just been inaugurated with the recognition of the qualities of some solid catalysts, is expected to be further reinforced by the validation of other tools now available. Structured catalysts that leads to smaller, cleaner and more energy efficient technology (i.e. process intensification), the use of ionic solvents, the exploitation of new substrates, are only some of the new directions that should be performed in order to improve the sustainability of the alkylation processes.

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