

P4-4

HYDROGEN OUTPUT FROM RADIOLYTICAL SPLIT OF WATER IN THE PRESENCE OF SOME ZEOLITES

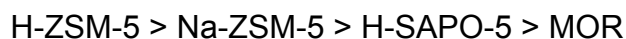
A. Cecal, D. Colisnic, K. Popa, A. Paraschivescu, N. Bilba

“Al. I. Cuza” – University, Faculty of Chemistry

Carol I – 11, 6600 – Iasi, Romania

This paper deals with the radiolytical decomposition of water molecules under the action of gamma rays in the presence of some zeolites like ZSM-5, SAPO-5 and MOR.

The irradiation was performed using a γ ^{60}Co - source, with $3 \cdot 10^4$ Ci activity and 8.3 KGy/h rate dose. The stable products of radiolysis as well as the other chemical species were emphasized by mass spectrometry. The radiochemical yield (G_{H_2}) calculated has decreased in the series:



in given experimental conditions, being higher in the presence of these catalysts than in their absence in the irradiated system.