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Production of alumina microspheres for use in column elution of generators $^{99}\text{Mo}/m^{99}\text{Tc}$

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Ceramic microspheres obtained by the internal gelation method have been used in various applications related to the nuclear, pharmaceutical, chemical, medical, environmental, biotechnology, etc. It is possible to obtain microspheres of different ceramic oxides, porous or dense varying the processing parameters in order to control its physical and chemical characteristics, such as porosity, size distribution, specific surface area, chemical composition, etc. In this work alumina microspheres were produced with the goal of relating their use in column elution of the generator $^{99}\text{Mo}/m^{99}\text{Tc}$ in order to give these generators performance, achieved with the above generators currently produced. After being characterized by analysis of porosimetry, specific surface area (BET), thermogravimetry, X-ray diffraction and scanning electron microscopy microspheres were tested in columns elution of the generators and was very efficient with a good revenue generators compared to currently produced.