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### **$^{113}\text{Sn}$ - $^{113\text{m}}\text{In}$ generator with a glass beads column**

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The parent nuclide  $^{113}\text{Sn}$  decays with a half-life of 115.1 days to produce the daughter nuclide  $^{113\text{m}}\text{In}$ .  $^{113\text{m}}\text{In}$  is a low energy  $\gamma$ -ray emitter with a half-life of 1.16 hours and can be employed in biological, chemical and physical studies. The advantage of this generator system is that  $^{113\text{m}}\text{In}$  can be eluted for a long time at sites remote from a reactor or cyclotron facility as  $^{113}\text{Sn}$  has a relatively long half-life of 115.1 days.

The present work was undertaken to study the possibility of preparing  $^{113}\text{Sn}$ - $^{113\text{m}}\text{In}$  generator with glass beads as adsorbent. The adsorption characteristics of  $^{113}\text{Sn}$ ( ) and  $^{113\text{m}}\text{In}$ ( ) on glass beads from NaCl solutions were studied. On the basis of these studies,  $^{113}\text{Sn}$ - $^{113\text{m}}\text{In}$  generator was prepared by adsorbing  $^{113}\text{Sn}$  on the glass beads column.  $^{113\text{m}}\text{In}$  was eluted by the 0.16M NaCl solution with pH 3.0, remaining  $^{113}\text{Sn}$  adsorbed on the glass beads.