Radioactive sources in the steel-making process - Simulation of the distribution of radioactivity having accidentally entered into a steel-making shop

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**Radioactive sources in the steel-making process - Simulation of the distribution of radioactivity having accidentally entered into a steel-making shop**

From 2001-07-01 to 2003-06-30

### Project details

<table>
<thead>
<tr>
<th><strong>Total cost:</strong></th>
<th><strong>EUR 1 023 000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EU contribution:</strong></td>
<td><strong>EUR 613 800</strong></td>
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<tr>
<td><strong>Coordinated in:</strong></td>
<td><strong>Germany</strong></td>
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<tr>
<td><strong>Topic(s):</strong></td>
<td><strong>C1 - Primary steelmaking</strong></td>
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<tr>
<td><strong>Funding scheme:</strong></td>
<td><strong>CSC - Cost-sharing contracts</strong></td>
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</tbody>
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### Objective

The ambition of this project is the characterisation of the distribution of relevant radioactive isotopes between metallurgical phases for scrap-consuming metallurgical processes (EAF, BOF). Therefore, thermodynamic equilibrium calculations together with experimental investigations are planned to determine the expected distributions of radioactive isotopes between metal melt, slag, gas phase, dust, and the refractory materials for the case of accidentally feeding them to the furnaces with the scrap. The results of these investigations, summarised in a “guidebook”, are intended to inform the steel-maker about the individual behaviour of relevant radioactive isotopes when they happen to get into the steelworks with the scrap. Recommendations will also be given at which points in the steel shop regular monitoring should be carried out.

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