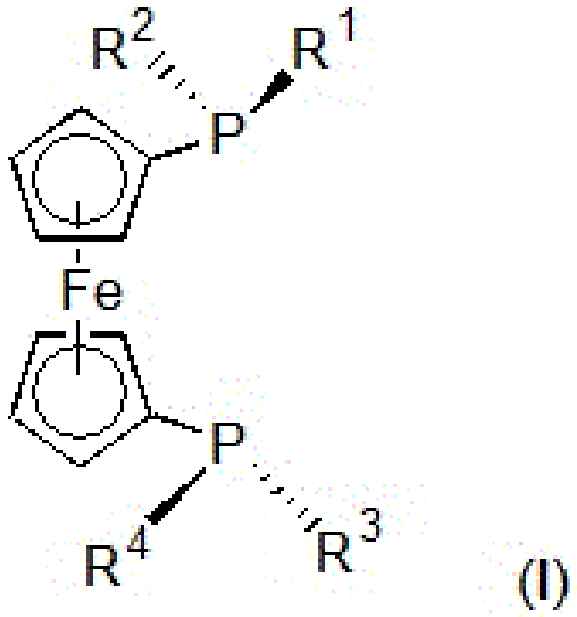

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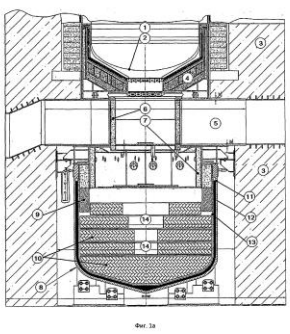
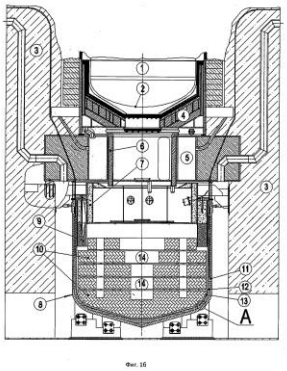
21: 2017/04786 22: 2017/07/14 43: 2018/06/21
51: G21C
71: Joint Stock Company Atomenergoproekt
72: NEDOREZOV, Andrey Borisovich, SIDOROV, Aleksandr Stalevich
33: RU 31: 2014150937 32: 2014/12/16
54: CONFINEMENT AND COOLING OF MELT FROM THE CORE OF A NUCLEAR REACTOR
00: -

The invention relates to the field of atomic energy, and specifically to systems which provide for the safety of nuclear power plants, and may be used in the event of serious accidents leading to the destruction of a reactor housing and of the hermetic containment structure of a nuclear power plant. A system for confining and cooling melt contains: a guide plate in the form of a funnel, installed under the bottom of the reactor housing; a cantilever truss, installed under the guide plate so that the plate rests on same; a melt catcher, installed under the cantilever truss and provided with a cooling casing in the form of a multi-layered vessel for protecting an outer heat-exchange wall against dynamic, thermal and chemical influences; and a filler for diluting the melt, located in said multi-layered vessel. Said multi-layered vessel contains a metal outer wall and a metal inner wall, and, positioned between same, a filler made of a material which has high thermal conductivity relative to the materials of the walls; the thickness of the filler h_{san} satisfies the condition of: $1.2h_{нар}<h_{san}<2.4h_{нар}$, where $h_{нар}$ is the thickness of the outer wall of the vessel. The technical result consists in increasing the effectiveness of removing heat from a melt and in increasing design reliability.





21: 2017/04787 22: 2017/07/14 43: 2018/06/21
51: G01N
71: Joint Stock Company "AKME-Engineering"
72: MARTYNOV, Petr Nikiforovich, CHERNOV, Michail Efimovich, STOROZHENKO, Alexsey Nikolaevich, SHELEMETYEV, Vasiliy Mihailovich, SADOVNICHIY, Roman Petrovich
33: RU 31: 2014150468 32: 2014/12/15
54: SENSOR FOR SENSING HYDROGEN IN LIQUID AND GASEOUS MEDIA
00: -

A sensor for sensing hydrogen in liquid and gaseous media comprises a selective membrane and a housing, a ceramic sensor element, a reference electrode, a porous platinum electrode, a sealed