

A Semi-Empirical Long-Term Scenario Analysis: Global Warming and Nuclear Perspectives

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A scenario writing model, STREAM^{*}, has been developed and utilized, together with a nuclear fuel-cycle evaluation code, STAR, for studying long-term perspectives of sustainable nuclear energy towards global warming protection.

Economy growths, energy demands including nuclear during 21st century were analysed for the BAU case as a function of per-capita GDP. CO₂ emission constraints corresponding to IPCC's S550, S750 and S1000 were applied and their effects were evaluated.

STREAM Analyses are explained with some results of such as primary energy intensity and CO₂ emission during 21st century, which are to be compared with those of, for instance, marker scenarios of IPCC SRES.

* Semi-empirical TRiple E Analysis Model