反应堆中子学计算程序系统PASC-1(扩充版)

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摘要　　PASC-1是将AMPX-Ⅱ/SCALE-3中的某些IBM版本群常数处理模块改成CDC版,经过若干修改后,与一维S_N程序ANISN、二维S_N程序DOT3.5及1—3维扩散程序CITATION相连接的程序系统。它是1988年中国核数据中心与荷兰能源研究中心ECN的科研人员共同合作,在ECN的CYBER170/855机上建立的。1989年,PASC-1被移植到北京原子能院CDC-CYBER-170/825机上,经扩充模块和修改,使其不仅可用于热堆计算,而且可用于快堆计算。文章对此程序系统作简单介绍。

关键词　　群常数处理模块　程序系统

分类号

A CODE SYSTEM PASC-1 FOR REACTOR NEUTRONICS CALCULATIONS (Extended Version)

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Abstract　PASC--1 is a reactor neutronics calculation programme system in whichAMPX--Ⅱ/SCALE--3 modules, ANISN, DOT3.5 and CITATION codes are linkedtogether for calculations on a CDC--CYBER computer. The IBM version sourcecodes of modules of AMPX--Ⅱ are translated into CDC version in FORTRAN--77and some changes are made for several modules. The PASC-1 system was first setup on CDC--CYBER--855 computer by the cooperation of CNDC and ECN resear-chers at Petten of The Netherlands in 1988, so called as "The Petten AMPX/SCALE Code System PASC--1". In 1989, the PASC--1 system was implemented and further extended on CDC-CYBER--825 computer at IAE. The new PASC--1 system can be used not only forthermal neutron reactors, but also for fast neutron reactors. It is briefly introducedin the paper.

Key words　Multigroup constant processing module　Code system

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