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SCIENTIFIC SOFTWARE TOOL FOR CALCULATION OF STATIC HEAT LEAK AND MATERIALS SPECIFIC HEAT FOR CRYOGENIC APPLICATIONS

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Content :

The scientific software tool 'Qdot' is being developed to calculate the static heat leaks in cryogenic system. 'Qdot' readily calculate conduction, residual gas conduction and radiation heat leak for cryogenic applications. This software tool uses NIST published cryogenic material property database along with well-known and published formulae for heat leak computation and specific heat calculation. In this software, 50 different materials property database are embedded in the developed program. Application is GUI based, user friendly and all calculations are done on the fly and instantaneously. In this paper, details of calculation flow chart, algorithms and software usage will be presented.

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