Lisence agreement for IMINTDYN simulation software

Conditions to use and download the IMINTDYN Software (C) 2025 Prof. Dr. Hans Christian Hofsäss

IMINTDYN is a software for simulation of ion solid interactions written by Prof. Hans Christian Hofsäss and is based on the SDTrimSP software licensed by the Max-Planck-Institute for Plasma Physics, 85748 Garching, Germany.
IMINTDYN as well as SDTrimSP are written in FORTRAN 90. IMINTDYN preferably uses Intels OneAPI compiler with HPC toolkit for parallel processing.

For users who

(1) possess a valid SDTrimSP license from MPI Plasma Physics, and

(2) are not located in the United States of America

the latest version of IMINTDYN is available free of charge !

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the latest version of IMINTDYN is available after paying a handling am import fee corresponding to 25% tariff of the cost of the SDTrimSP license (currently 700 € - 2600 € for a SDTrimSP V7 licence). The corresponding fee is 175 € up to 650 €.

Requesting the download of the IMINTDYN software package implies the possesion of a valid SDTrimSP license and accepting the conditions described below.

The IMINTDYN software is supplied as source code and needs to be compiled preferably using Intels One API Compiler with HPC toolkit. In contrast to SDTrimSP the IMINTDYN software solely runs in parallel-mode using MPI routines.
As at March 2025, IMINTDYN runs very efficiently on work stations equipped with AMD Ryzen Threadripper PRO or Intel Core-i9 processors
The Software has several options to simulate electronic stopping up to ion energies of 2 GeV. One option is based on the stopping data of SRIM2013 ©, which were extracted using SRModule are supplied as tabulated numeric data for all 92x92 combinations of elements of the periodic table.
The latest version 8.3 has the option of a new element specific interaction potential introduced by Nordlund, Lehtola and Hobler

The software package comes with installation guide, user's manual and list of commands. It also contains a larger number of template script files for various type of simulations, which can be copied and edited for new types of simulations.
Permission to use, copy and modify this software requires a valid license for SDTrimSP.

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The IMINTDYN Software can be cited by reference to the following publication:
Binary collision approximation simulations of ion solid interaction without the concept of surface binding energies, H. Hofsäss, A. Stegmaier Nucl. Instr. Meth. B. 515 (2022) 49

I/We confirm that

(1) we possess a valid license for SDTrimSP
(2) we accept the conditions to use the IMINTDYN software

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The license fee for IMINTDYN should be transferred with reference “IMINTDYN” to
Prof. Hans Hofsäss
IBAN DE 22 2605 0001 0104 8749 20 Sparkasse Goettingen
BIC: NOLADE21GOE