Appendix A

ADAS data formats

The various permanent data sets in ADAS fall into a number of categories with precisely defined organisation and formatting. The specifications of these are called 'ADAS data formats' or ADF's for short. They are as follows:

ADF00	ground configurations and ionisation potentials
ADF01	bundle-n & bundle-nl charge exchange cross-sections
ADF02	ion impact cross-sections with named participant
ADF03	recombination, ionisation and power parameter sets.
ADF04	resolved specific ion data collections
ADF05	general z excitation data collections
ADF06	general z recombination/ionisation data collections

ADF07	direct resolved electron impact ionisation coefficients
ADF08	direct resolved radiative recombination coefficients
ADF09	direct resolved dielectronic recombination coefficients
ADF10	iso-electronic master files
ADF11	iso-nuclear master files
ADF12	charge exchange effective emission coefficients
ADF13	ionisation per photon coefficients
ADF14	thermal charge exchange coefficients
ADF15	photon emissivity coefficients
ADF16	generalised contribution functions
ADF17	condensed projection coefficients
ADF18	cross-referencing data
ADF19	zero density radiative power coefficients
ADF20	G(Te) functions
ADF21	effective beam stopping coefficients
ADF22	effective beam emission coefficients
ADF23	state selective electron impact ionisation coefficients
ADF24	state selective charge transfer cross-sections
ADF25	driver datasets for ADAS204 calculation
ADF26	neutral beam hydrogen bundle-n and helium bundle-nl populations
ADF27	driver datasets for ADAS701 (AUTOSTRUCTURE) calculations.
ADF28	driver datasets for ADAS702 and ADAS703 dielectronic recombination post-processing.
ADF29	driver datasets for ADAS707 calculations.
ADF30	driver datasets for ADAS708 post-processing.
ADF31	feature files for satellite line spectral simulation..

ADF32	driver datasets for ADAS802 calculations.
ADF33	driver datasets for ADAS803 collisional excitation post-processing.
ADF34	driver datasets for ADAS801 (Cowan/O'Mullane) calculations.
ADF35	spectral filter data.
ADF36	feature files for series limit spectral simulation.
ADF37	non-Maxwellian distribution function files.
ADF38	Seaton - opacity photo-excitation.
ADF39	Seaton - opacity - photo-ionisation.
ADF40	envelope feature photon emissivity coefficients.
ADF41	driver data-sets for offline ADAS8#1 calculations.
ADF42	driver data-sets for ADAS810 calculations.
ADF43	GTN photon emissivity functions.
ADF44	F_GTN envelope feature emissivity functions.
ADF45	feature files for continuum emission.