

Instrument	Dataset	Dates	Altitude km	Coverage cm ⁻¹	Spectroscopy
MIPAS-IMK	V5H_H2O_20 V5R_H2O_220/221 V5H_HDO_22 V5R_HDO_222/223	2002-2004 2005-2012 2002-2004 2005-2012	5-72	H ₂ O: 795-827 & 1223-1410 HDO:1250-1482	MIPAS_pf3.32 (HITRAN 1996)
MIPAS-ESA	L1 V8.22	200?-????	5-55	H ₂ O: 783-956 & 1224-1696 HDO: 1218-1471	HITRAN_mipas_pf4.45 (HITRAN 08/12/16)
ACE-FTS	V4.1/4.2	2004- present	5-150	H ₂ O: 937-3173 HDO: 1383-1511 & 2493-2673	HITRAN 2016 (?)

Table X. Key aspects of the three retrieval methodologies compared in this work.