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GEOTHERMAL TRAINING PROGRAMME
Orkustofnun, Grensásvegur 9,
IS-108 Reykjavík, Iceland

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APPENDICES TO THE REPORT:
**MAGNETO TELLURIC AND TRANSIENT ELECTROMAGNETIC
METHOD IN GEOTHERMAL EXPLORATION, WITH EXAMPLE
FROM TENDAHO GEOTHERMAL FIELD, ETHIOPIA**

Yohannes Lemma

UNU Geothermal Training Programme
Orkustofnun - National Energy Authority
Grensásvegur 9
IS-108 Reykjavík,
ICELAND

Permanent Address:

Geological Survey of Ethiopia
Hydrogeology, Engineering Geology and Geothermal Department
P.O.Box 40069
Addis Ababa
ETHIOPIA
yohlema@yahoo.com

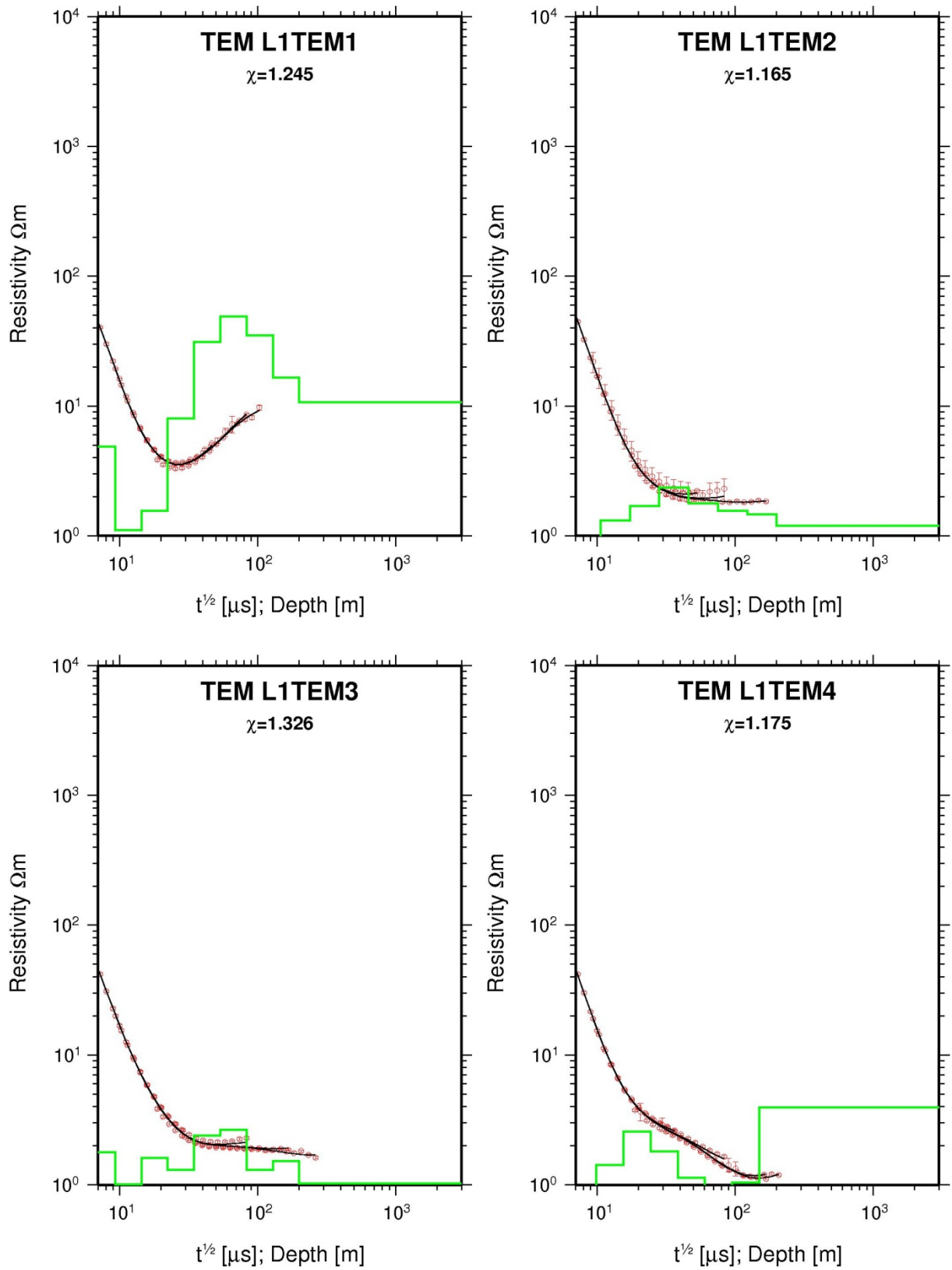
These are appendices to the report “Magnetotelluric and transient electromagnetic methods in geothermal exploration, with a example from Tendaho geothermal field, Ethiopia” by Yohannes Lemma at the UNU Geothermal Training Programme in 2007. Appendix I contains the location and elevation of the TEM and MT soundings used in the report. Appendix II shows 1-D modelling of the TEM soundings using the program TEMTD, while Appendix III shows 1-D joint inversion of TEM and MT using TEMTD and the corresponding model curves.

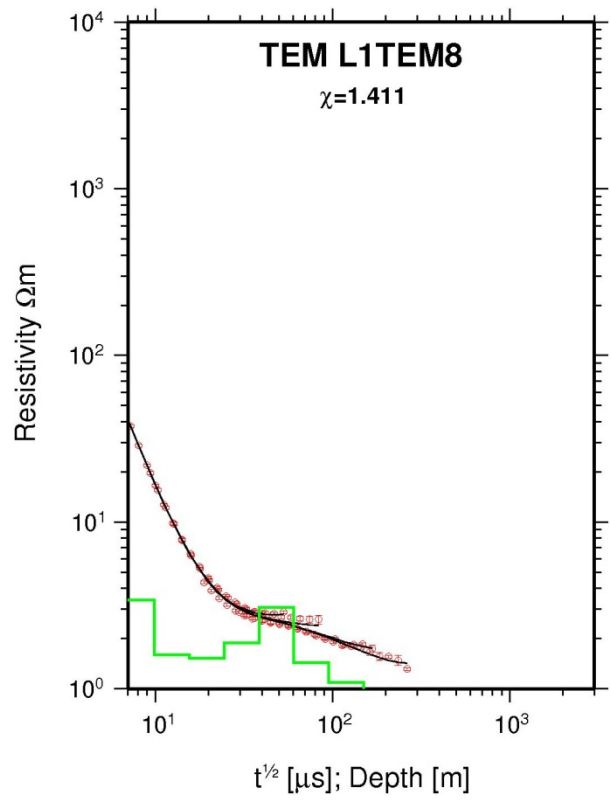
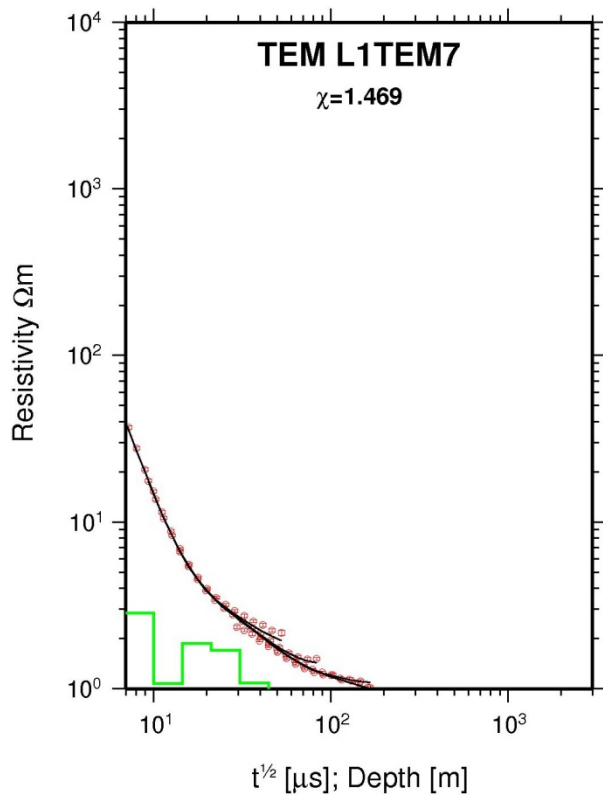
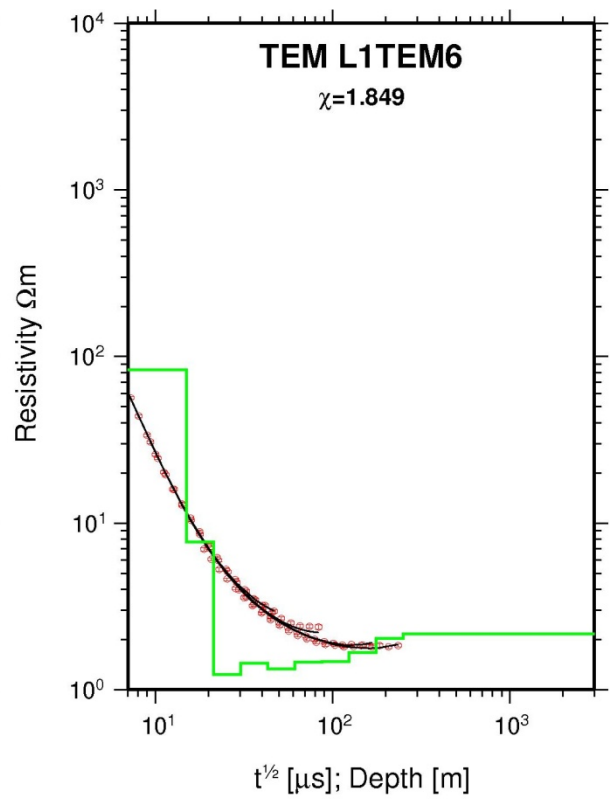
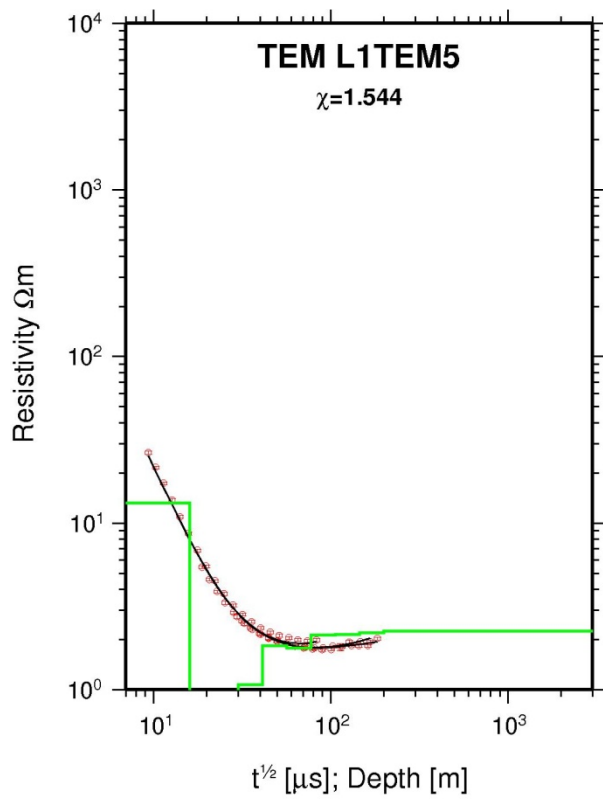
APPENDIX I: Location and elevation of TEM and MT soundings taken at the same site at Tendaho geothermal field.

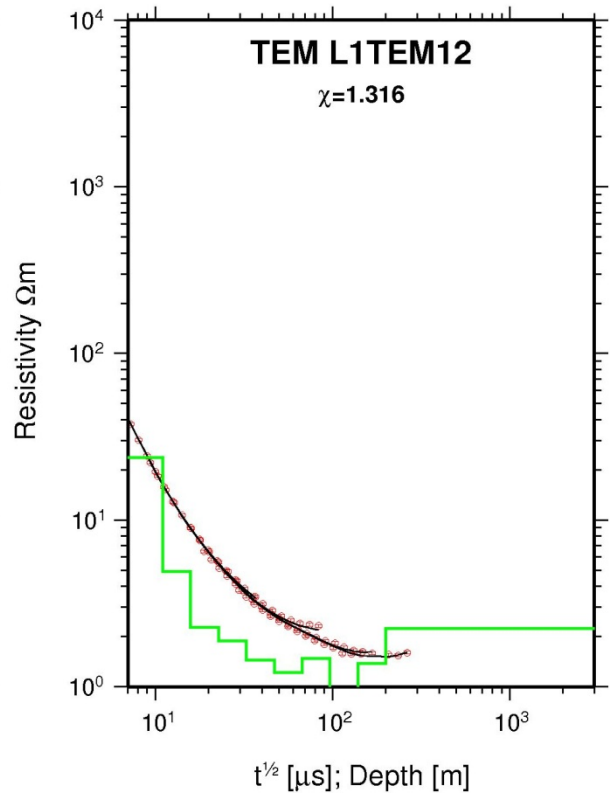
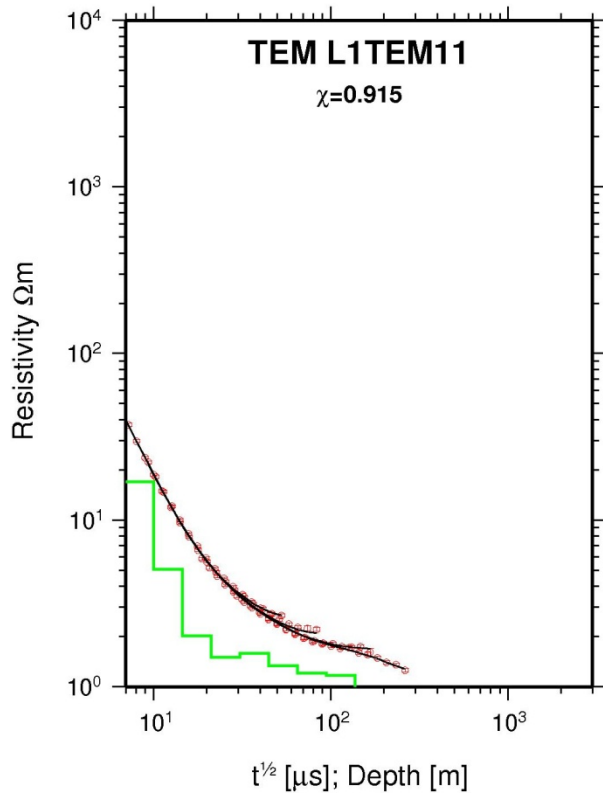
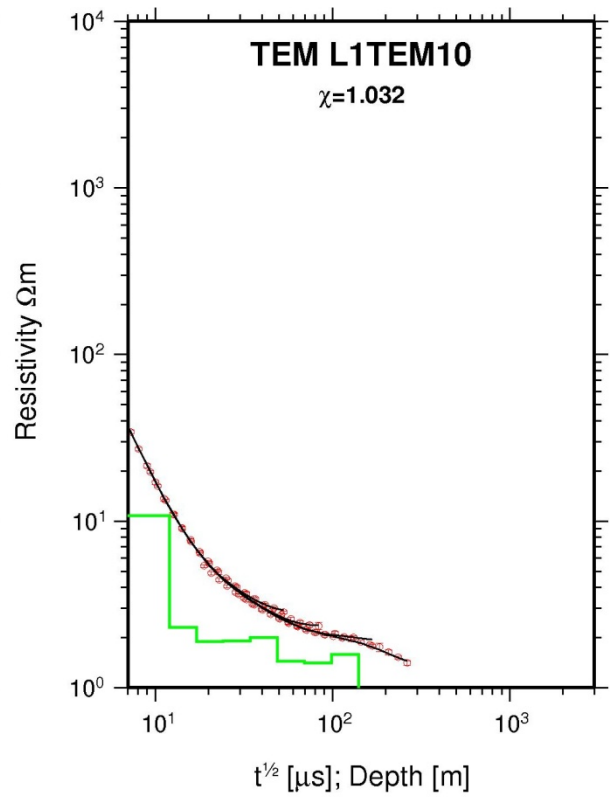
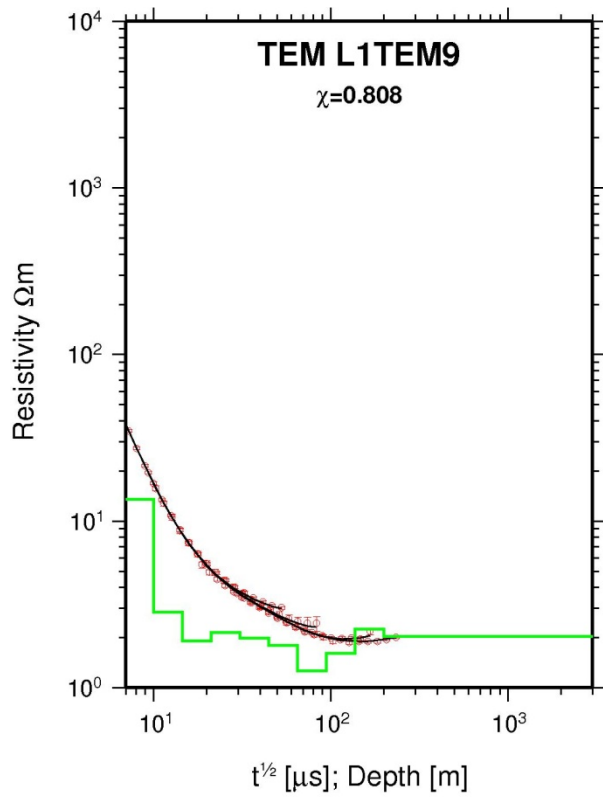
TABLE 1: Location and elevation of TEM and MT soundings

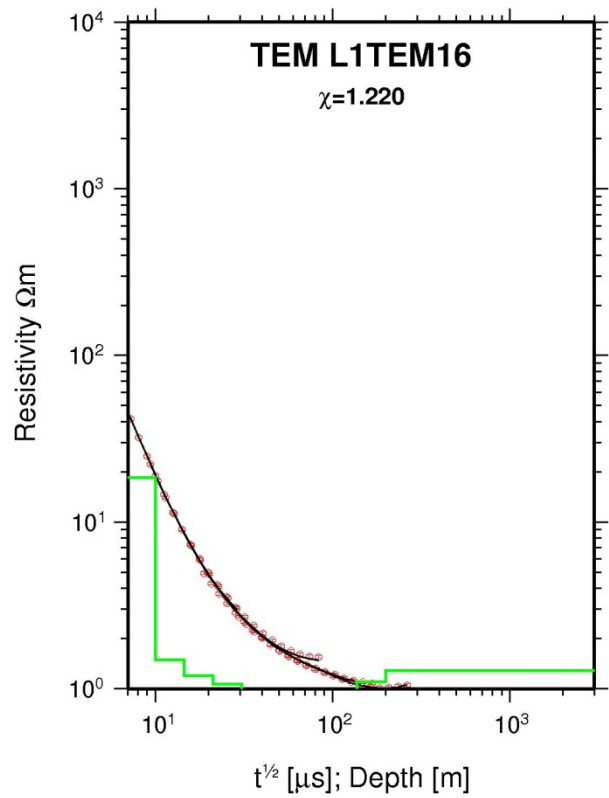
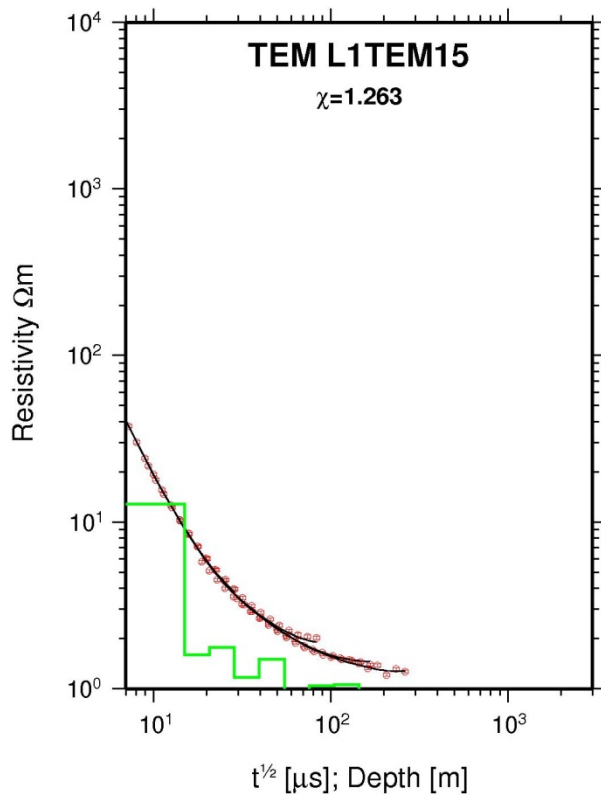
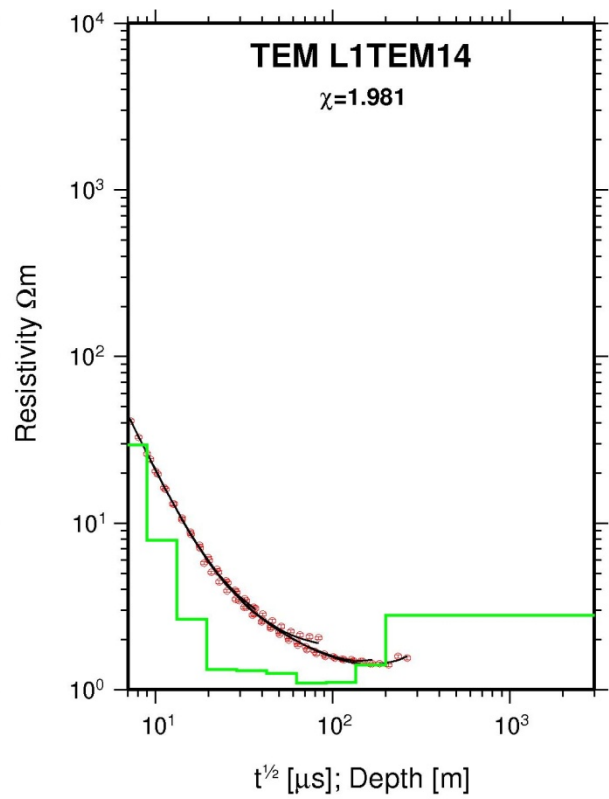
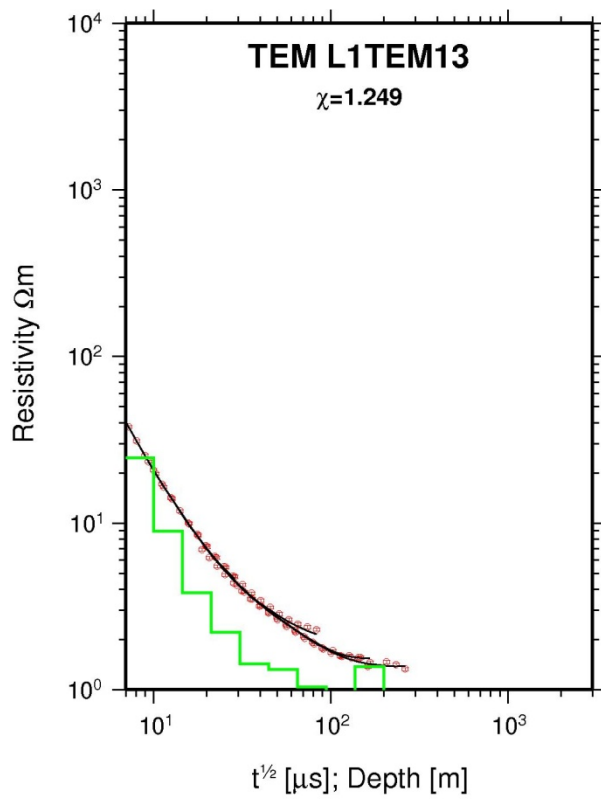
TEM site	MT site	Easting(UTM)	Northing(UTM)	Elevation	TEM site	MT site	Easting(UTM)	Northing(UTM)	Elevation
L1TEM2	TDO0101	731524	1303226	352	L3TEM304	TDO0304	730805	1300042	367
L1TEM3		730743	1302603	356	L3TEM305	TDO0305	737907	1301852	365
L1TEM4		732389	1303945	368	L3TEM306	TDO0306	733628	1300877	364
L1TEM5		726946	1301303	370	L3TEM307	TDO0307	741203	1302940	353
L1TEM6		723420	1299987	391	TEM9701	TDO9701	725483	1313946	361
L1TEM7	TDO0106	734515	1304096	362	TEM9702	TDO9702	728351	1315301	375
L1TEM8		735506	1304503	367	TEM9703	TDO9703	731538	1317130	375
L1TEM9		736489	1304803	369	TEM9704	TDO9704	734283	1318524	380
L1TEM10	TDO0105	737502	1305205	367	TEM9705	TDO9705	737495	1320418	377
L1TEM11		738357	1305606	364	TEM971		726584	1314306	369
L1TEM12		739355	1305902	369	TEM972		727370	1314889	372
L1TEM13		740356	1306256	369	TEM973		729257	1315864	375
L1TEM14		741354	1306654	764	TEM974		727900	1315050	374
L1TEM15		742404	1307007	367	TEM975		730247	1316413	381
L1TEM16		743357	1307405	370	TEM976		735806	1319440	377
L1TEM17	TDO0104	744376	1307806	372	TEM9801	TDO9801	724351	1314578	366
L1TEM18	TDO0103	720448	1298520	378	L4TEM1		732412	1302733	361
L1TEM19		721392	1299635	394	L4TEM2		733026	1302021	361
L1TEM20		722402	1299740	390	L4TEM3		733455	1301664	364
L1TEM21		729813	1302357	358	L4TEM4		733836	1301381	362
L1TEM22	TDO0102	728867	1301928	373	L4TEM5		734389	1300568	358
L1TEM23		724295	1300249	386	L4TEM6		730706	1303817	362
L1TEM24		725302	1300642	379	L4TEM7		729978	1304143	357
L1TEM25		726298	1300998	371	L4TEM8		728946	1304922	359
L2TEM1	TDO0201	725595	1303705	372	L5TEM1		725032	1299376	379
L2TEM2		726460	1304063	361	L5TEM2		725996	1299760	382
L2TEM3	TDO0202	727455	1304567	365	L5TEM3		726999	1300098	386
L2TEM4		728448	1304968	363	L5TEM4		728049	1300445	371
L2TEM5	TDO0203	729267	1305441	371	L5TEM5		728961	1300647	364
L2TEM6		731131	1306280	364	L5TEM6		729990	1301117	369
L2TEM7		732099	1306721	373	L5TEM7		730815	1301492	369
L2TEM8	TDO0204	733000	1307200	373	L5TEM8		731890	1301690	371
L2TEM9		733945	1307600	349	L5TEM9		735767	1303000	367
L2TEM10		734863	1308045	367	L5TEM10		736710	1303383	389
L2TEM11	TDO0205	735999	1308601	372	L5TEM11		737701	1303698	367
L2TEM12		736950	1309022	371	L5TEM12		738670	1303999	366
L2TEM13		737853	1309450	375	L5TEM13		739700	1304400	374
L2TEM14		739002	1309997	380	L5TEM14		740648	1304764	373
L3TEM2		725721	1298772	381	L5TEM15		741632	1305049	370
L3TEM3		728450	1299599	368	L5TEM16		742599	1305398	361
L3TEM4		729519	1299670	359	L5TEM17		743550	1305711	369
L3TEM5		731770	1300251	369	L5TEM18		722183	1298441	383
L3TEM6		738853	1302273	365	L5TEM19		723104	1298753	385
L3TEM7		739900	1302553	369	L5TEM20		724107	1299082	376
L3TEM8		742201	1303217	371	TEM991		731151	1311373	369
L3TEM9		743207	1303508	363	TEM992		730498	1312014	370
L3TEM10		734737	1301055	374	TEM993		729699	1312750	370
L3TEM301	TDO0301	744376	1303801	365	TEM994		728948	1313432	364
L3TEM302	TDO0302	724313	1303801	380	TEM995		728203	1314182	373
L3TEM303	TDO0303	727434	1299446	378	TEM996		726628	1315501	368
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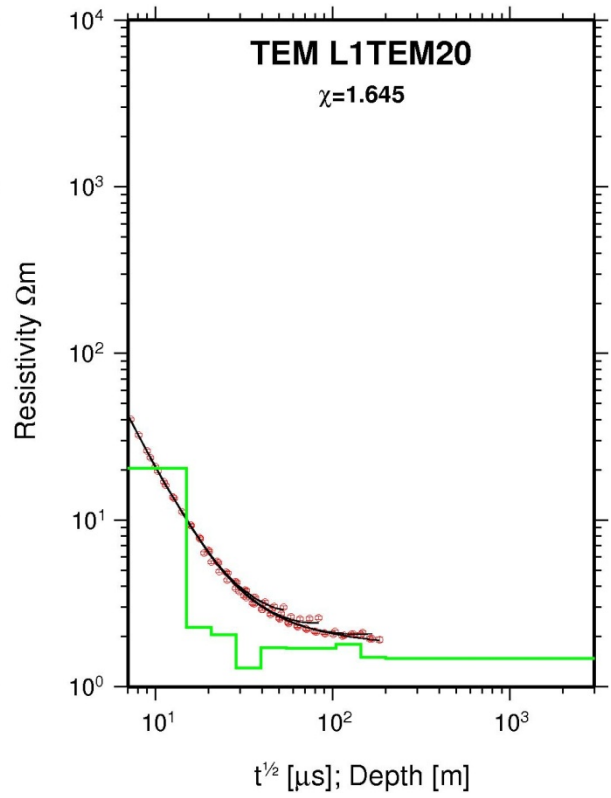
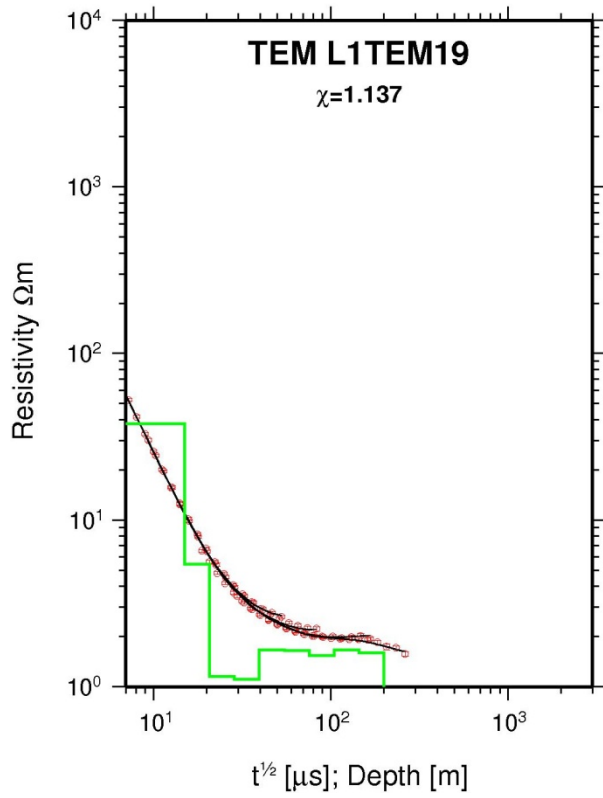
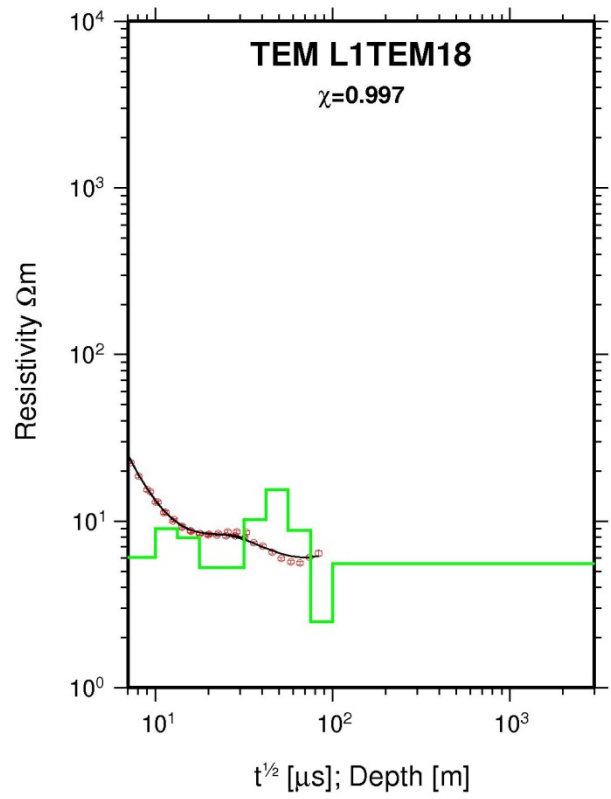
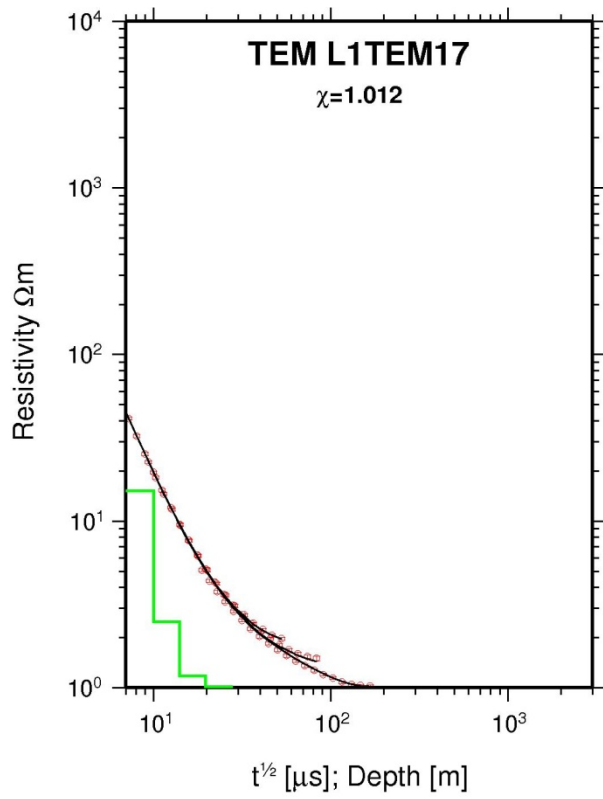
APPENDIX II: 1-D modelling of TEM using TEMTD

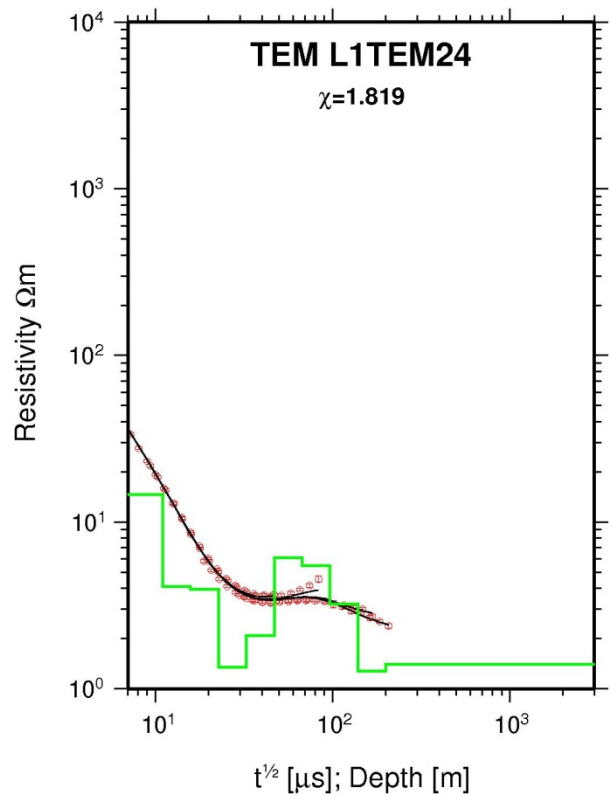
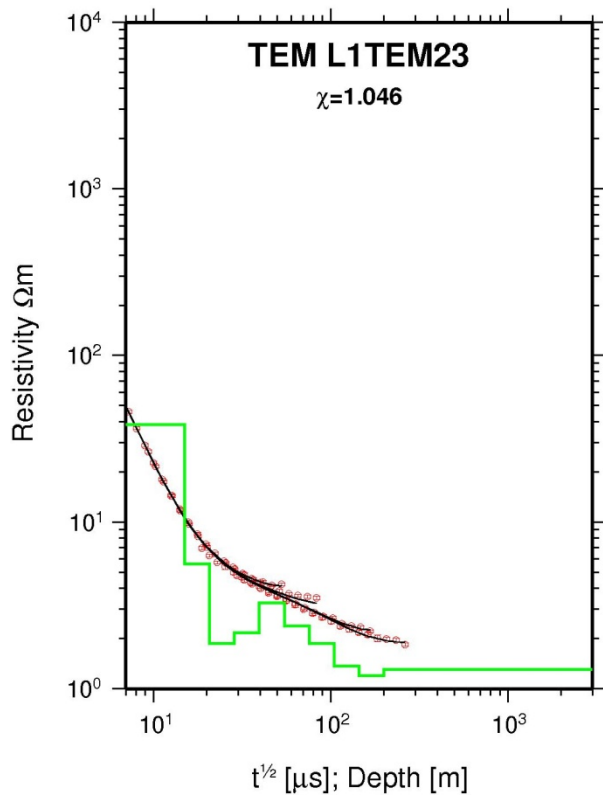
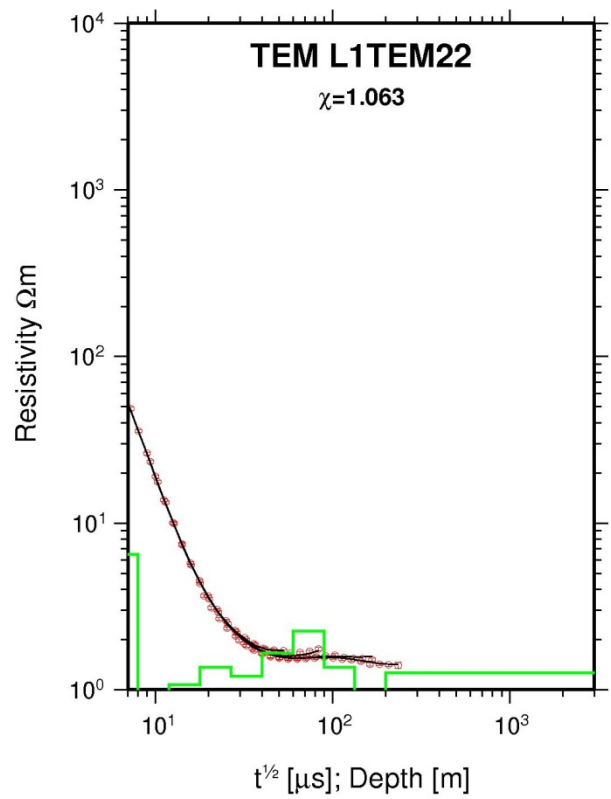
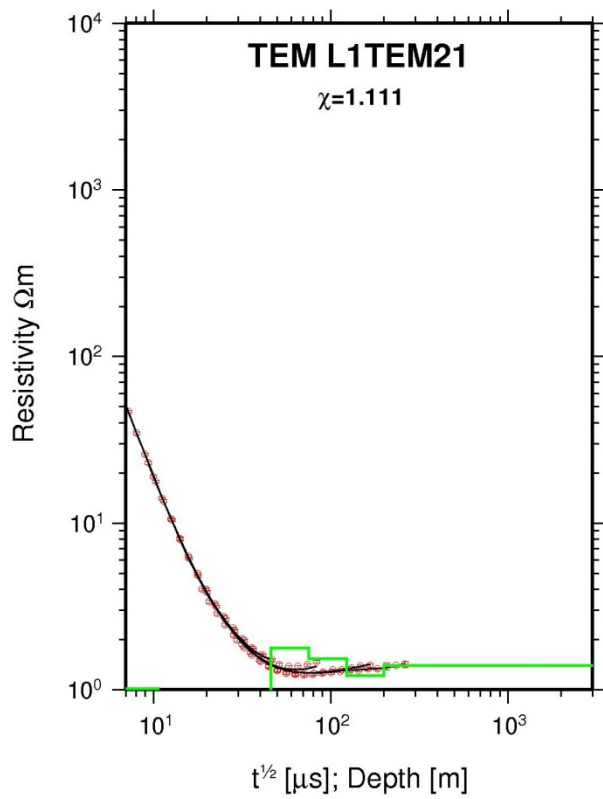


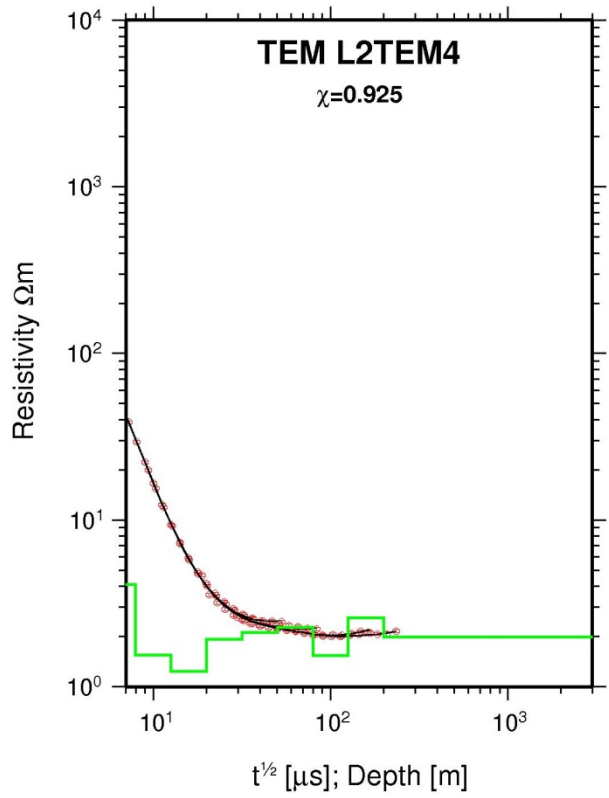
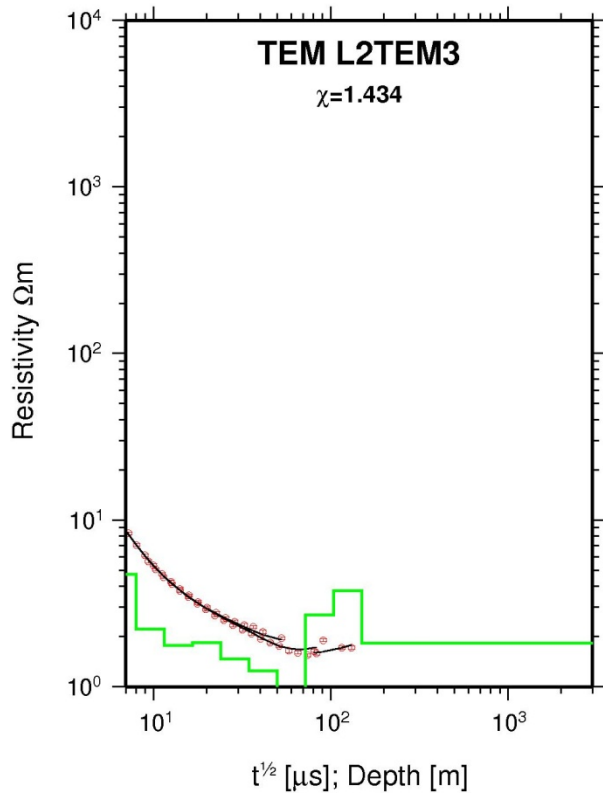
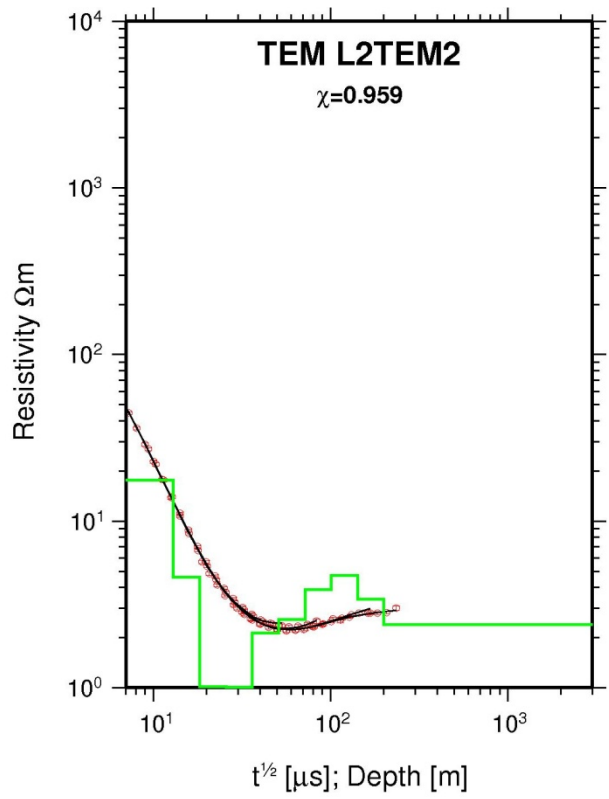
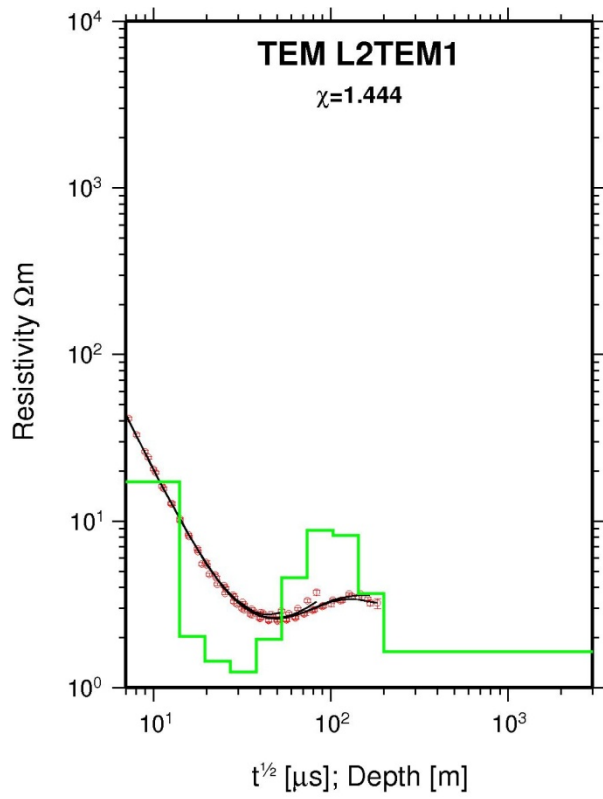


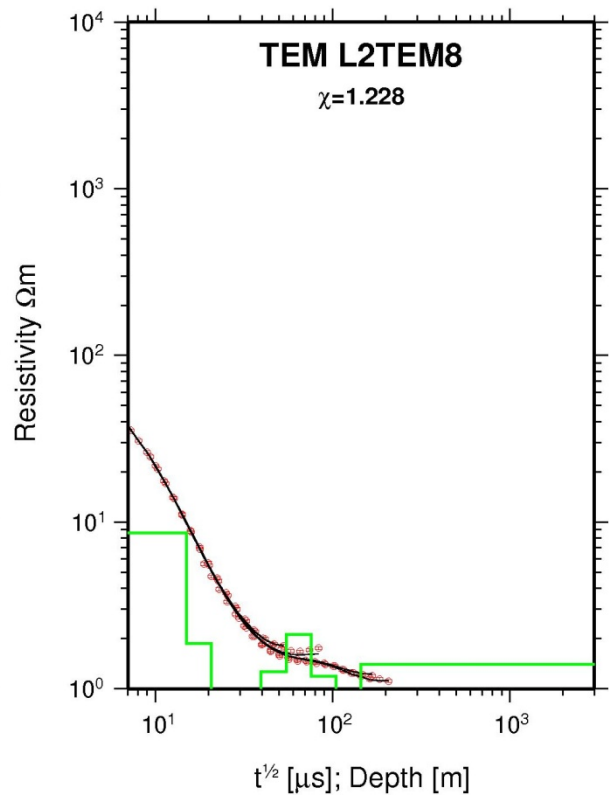
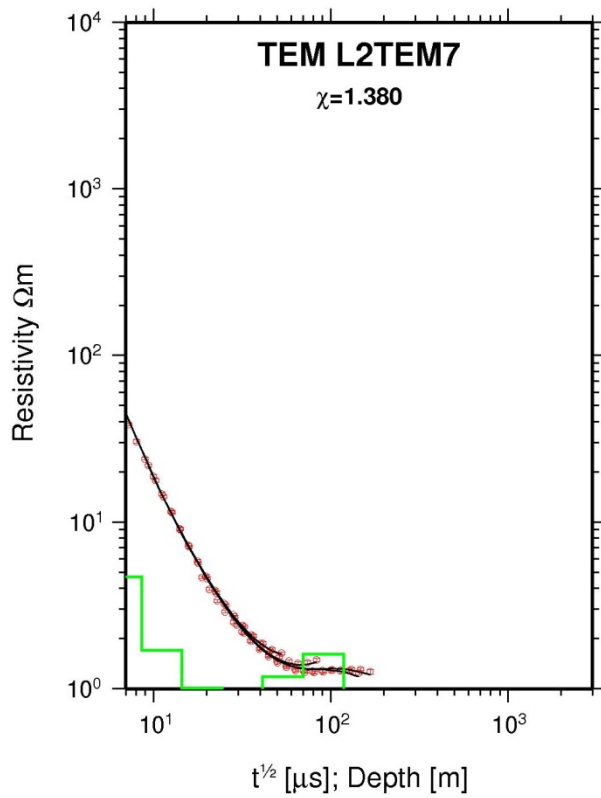
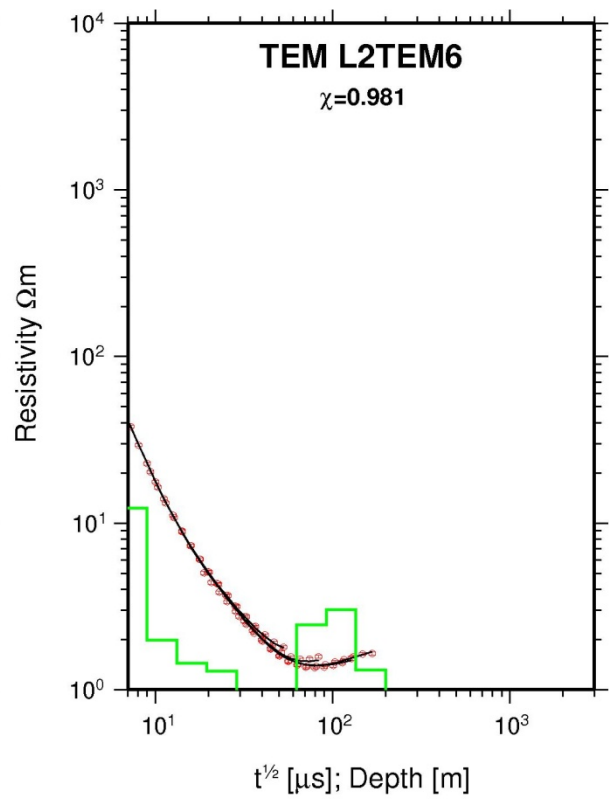
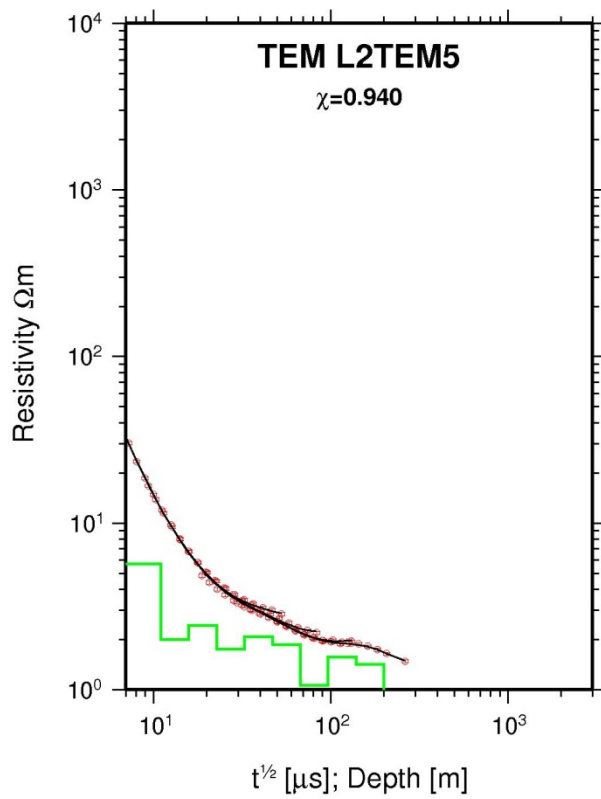


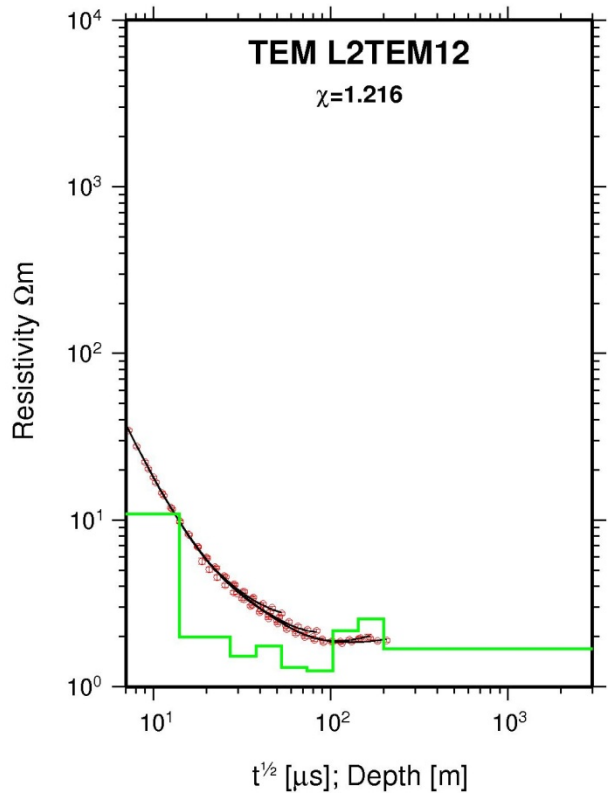
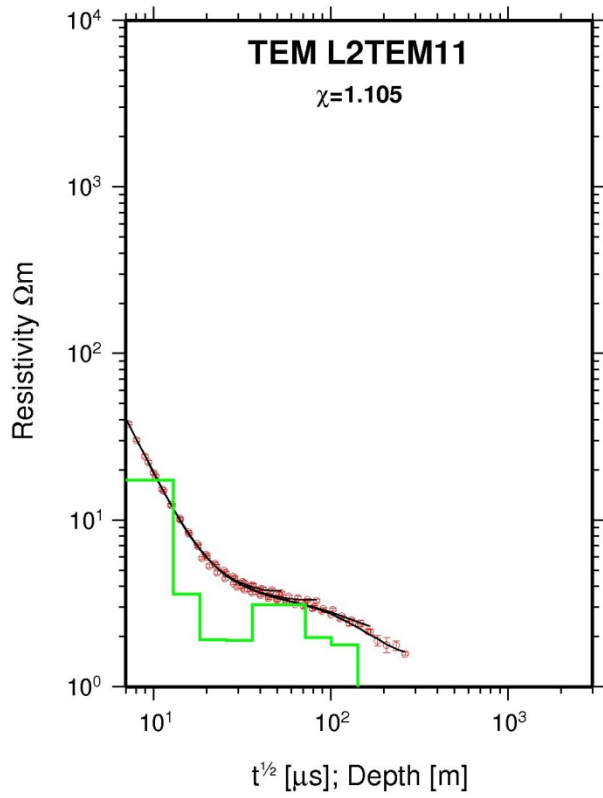
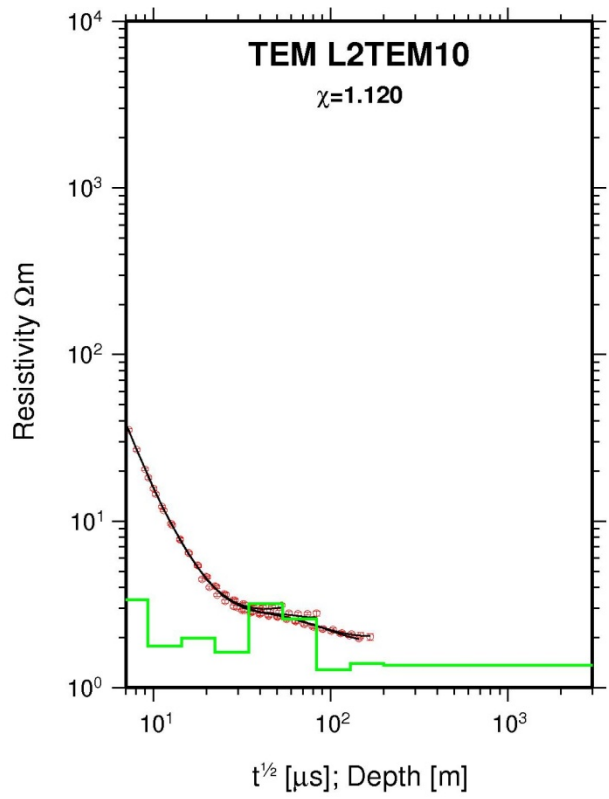
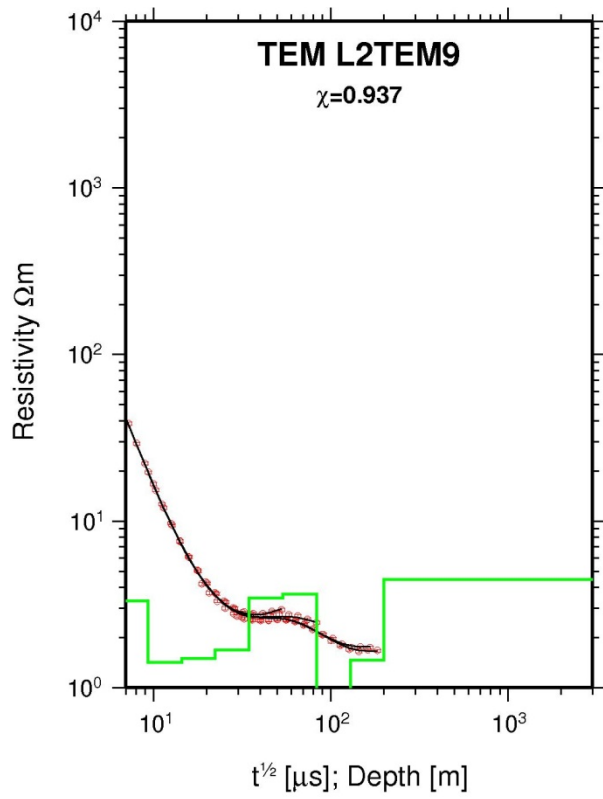


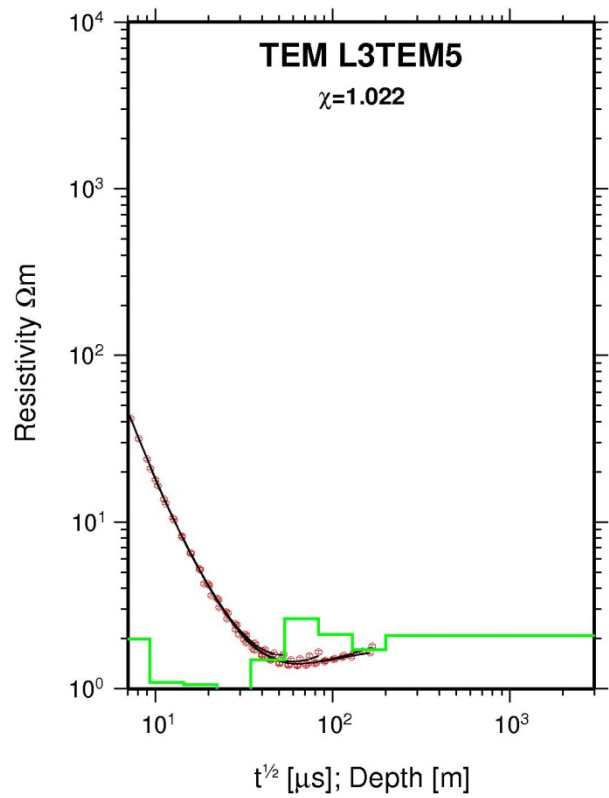
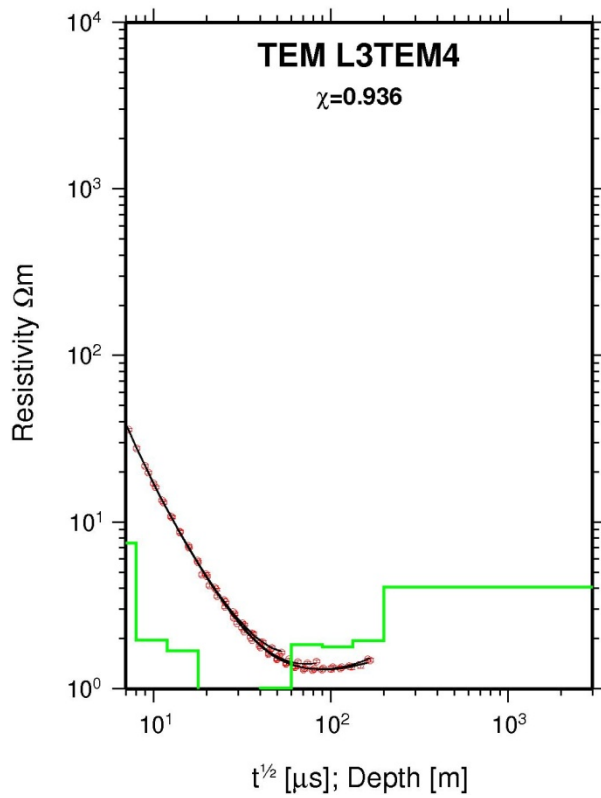
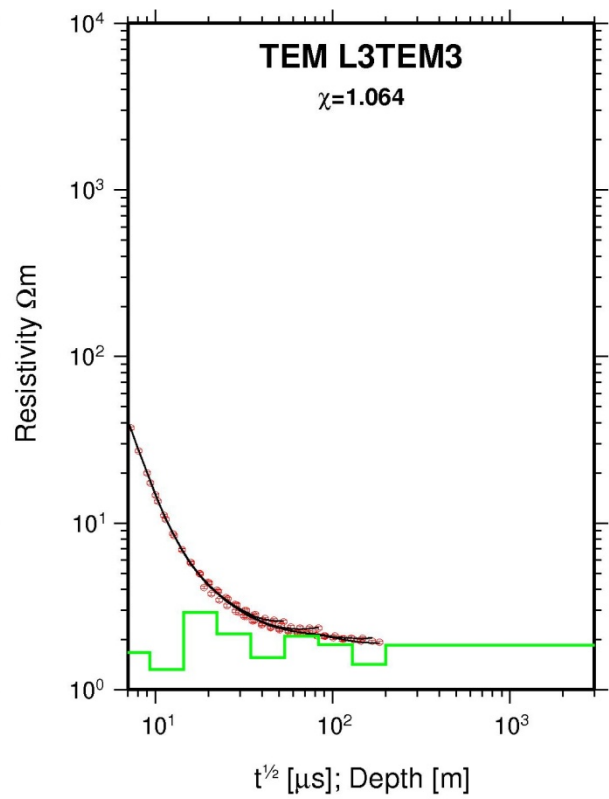
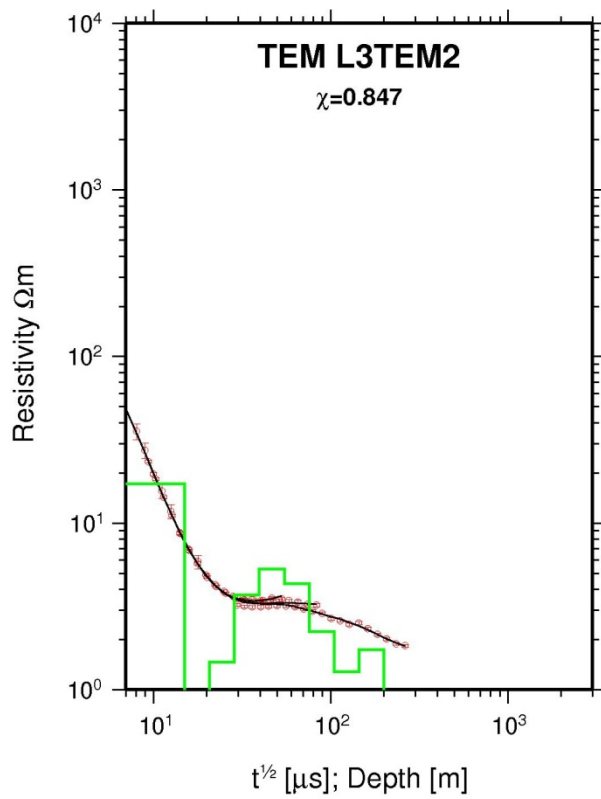


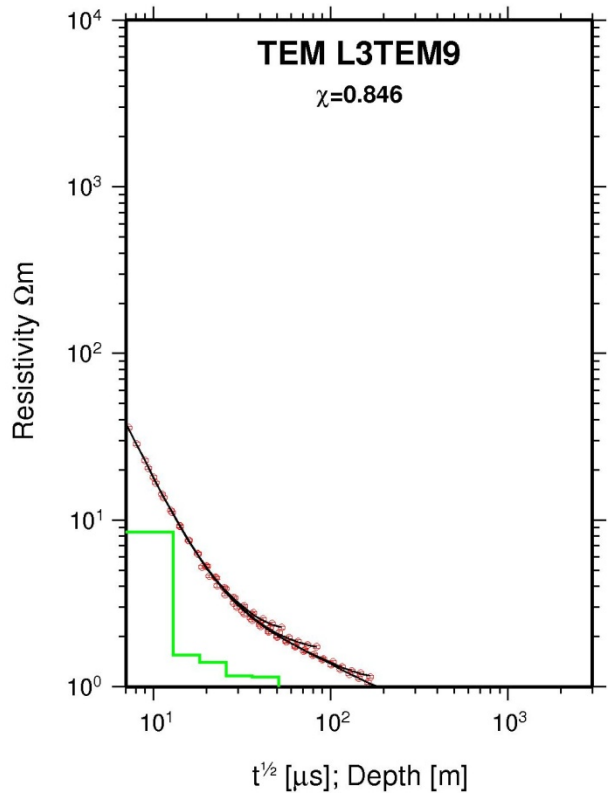
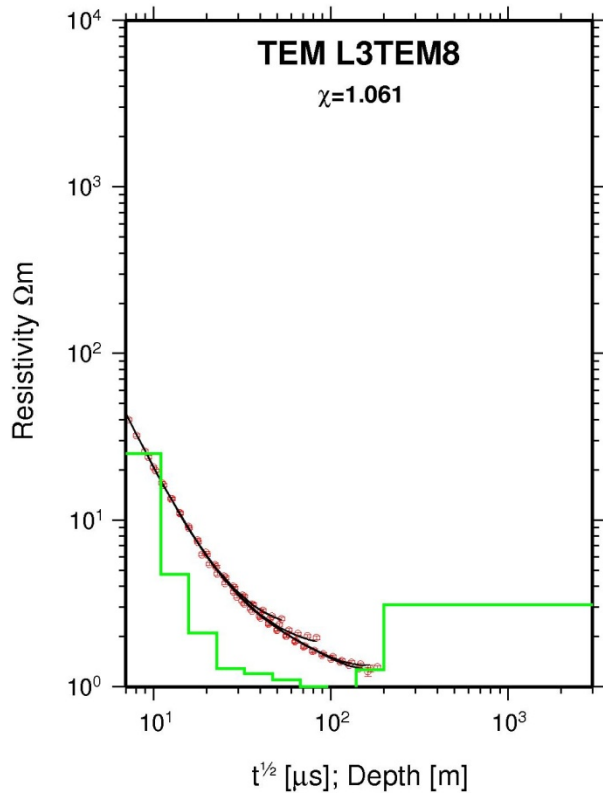
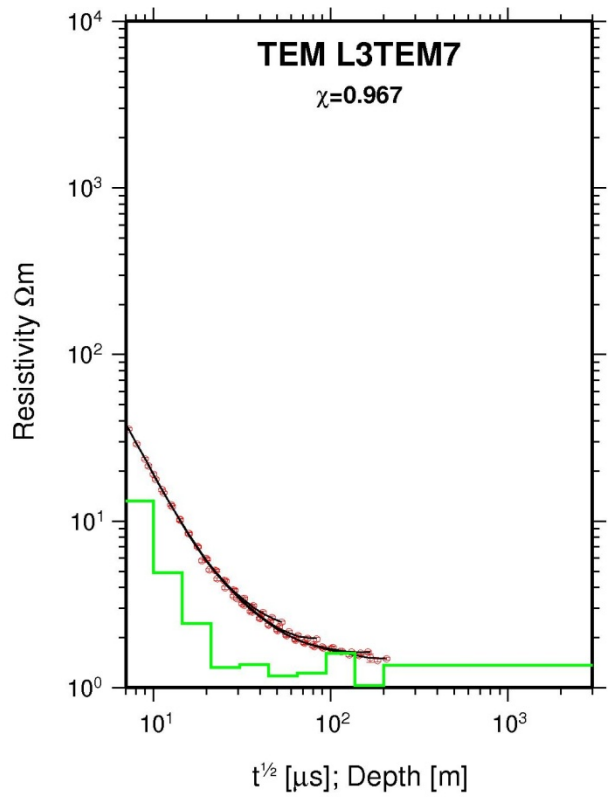
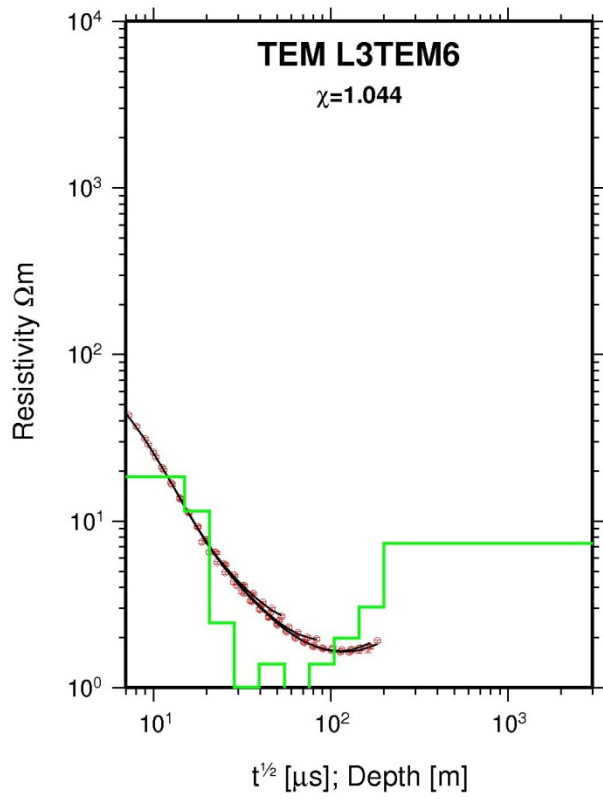


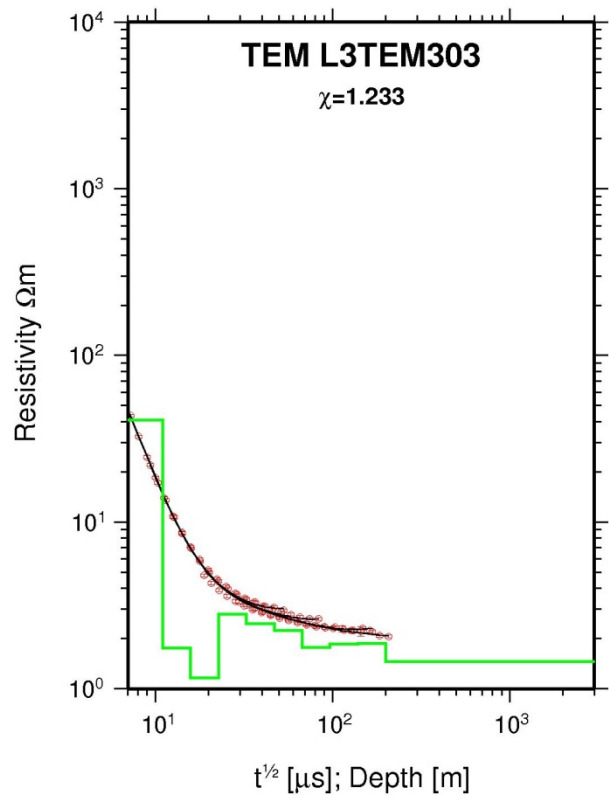
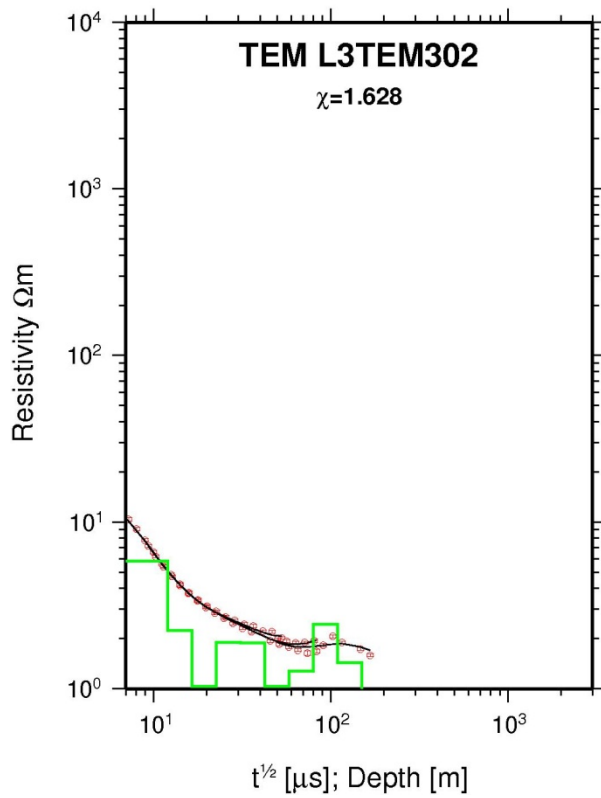
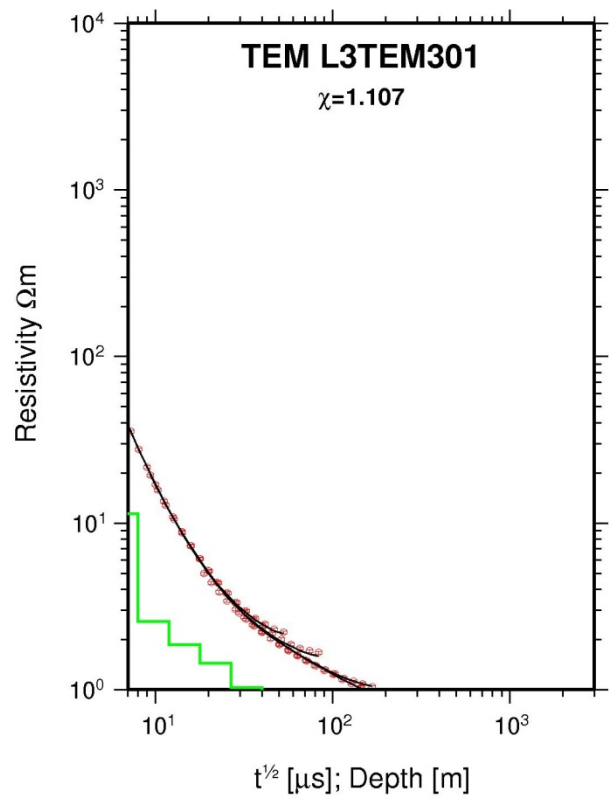
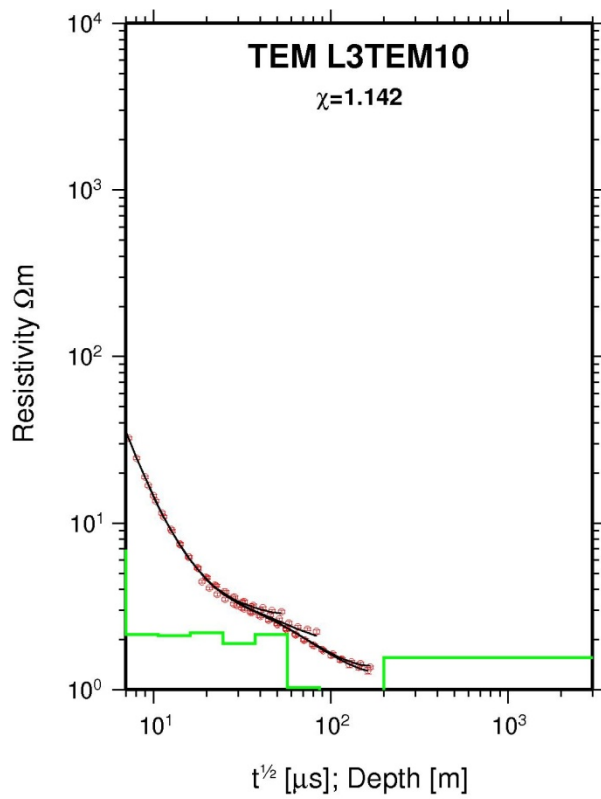


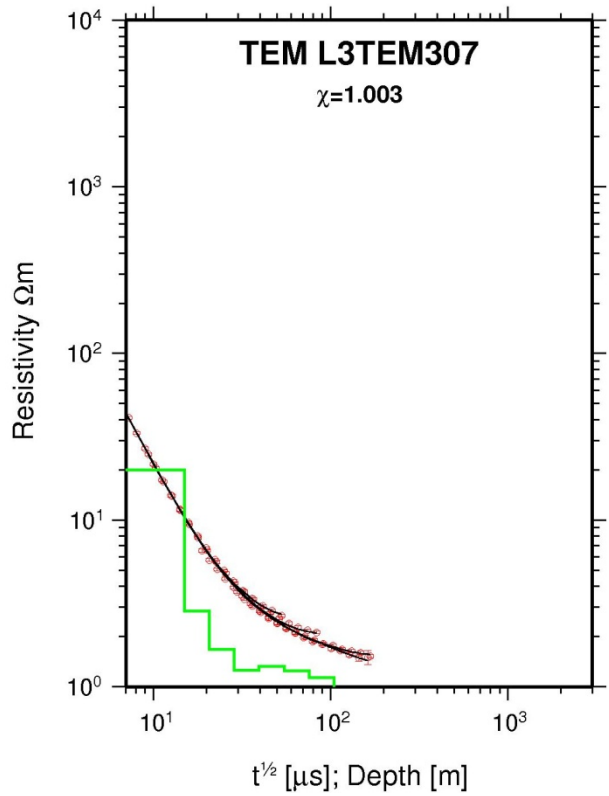
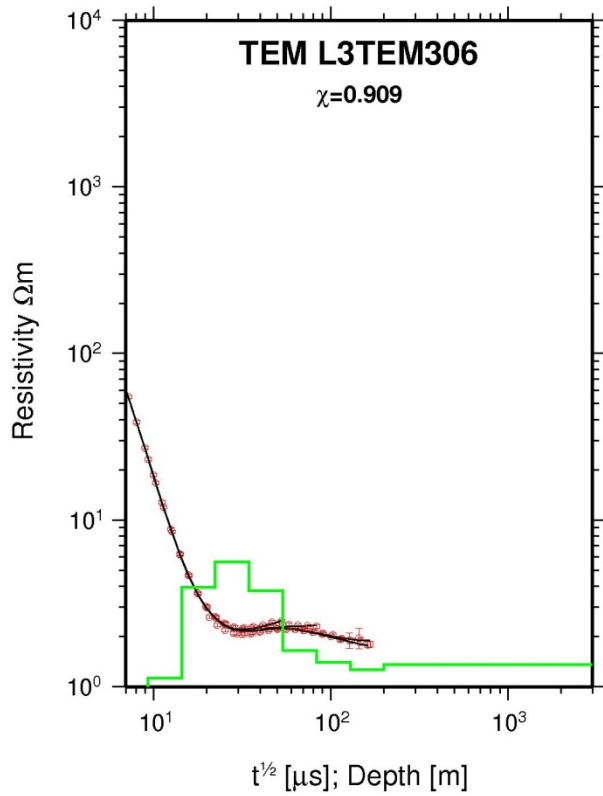
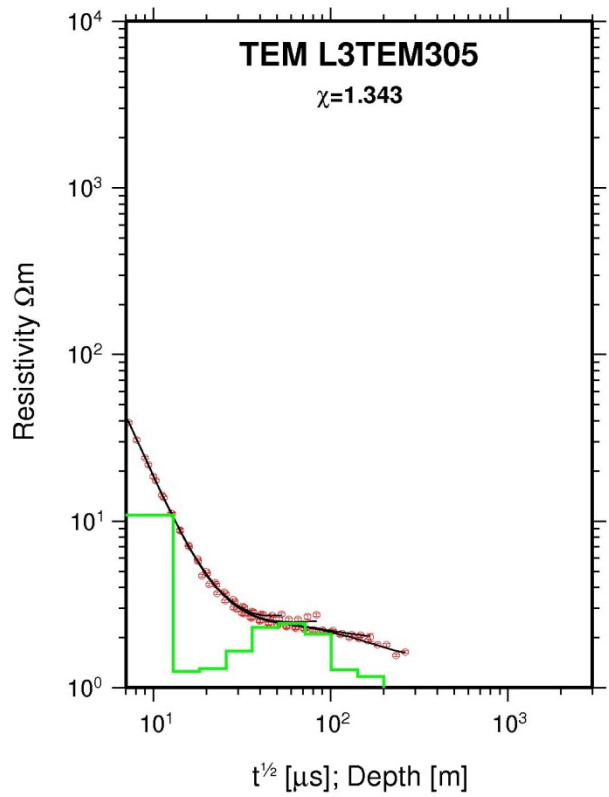
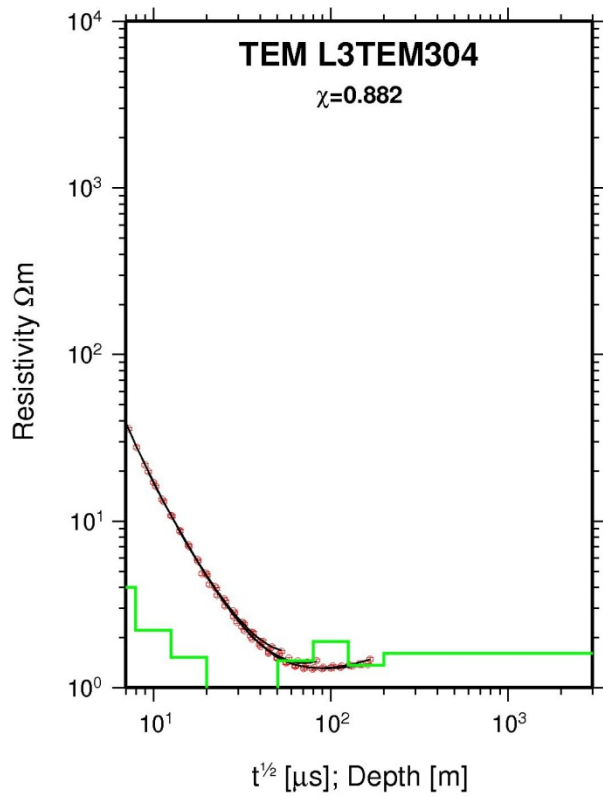


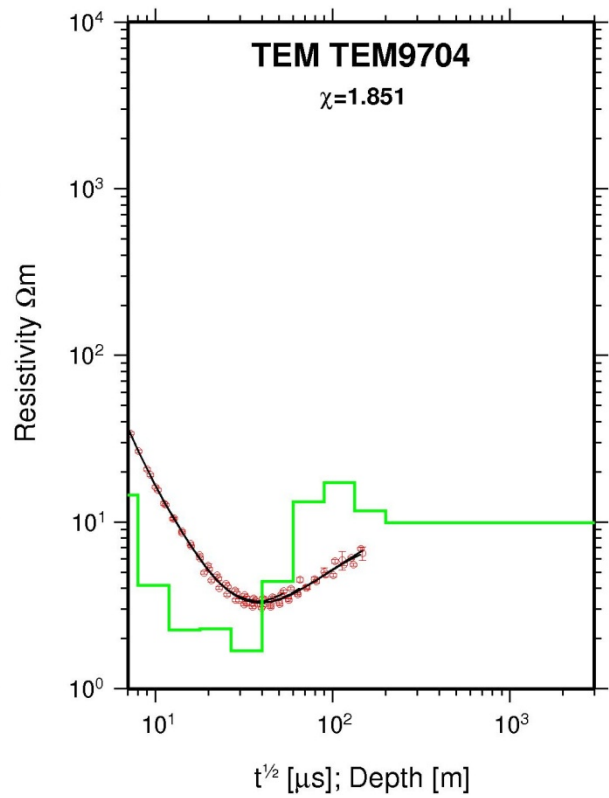
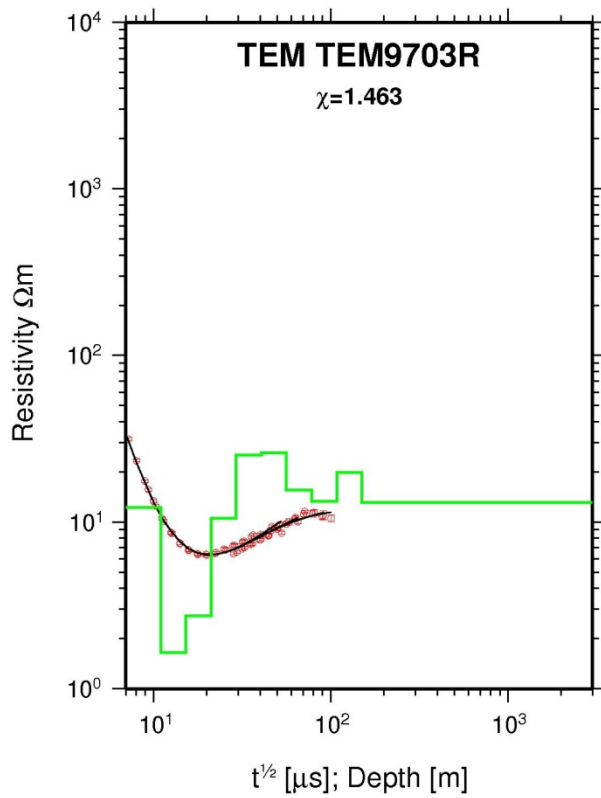
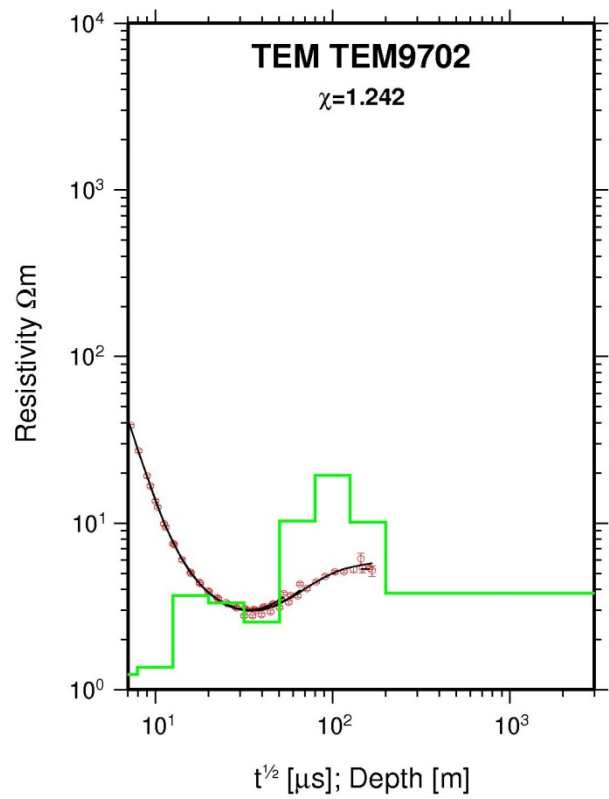
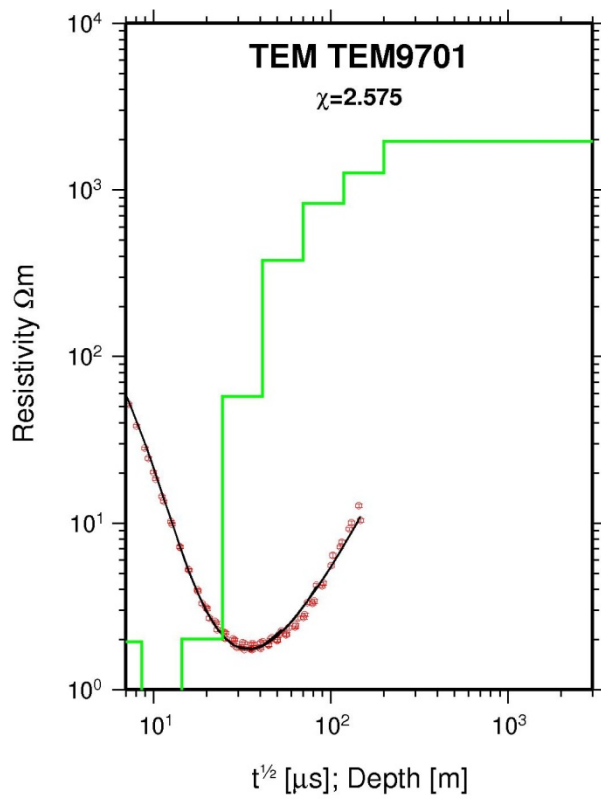


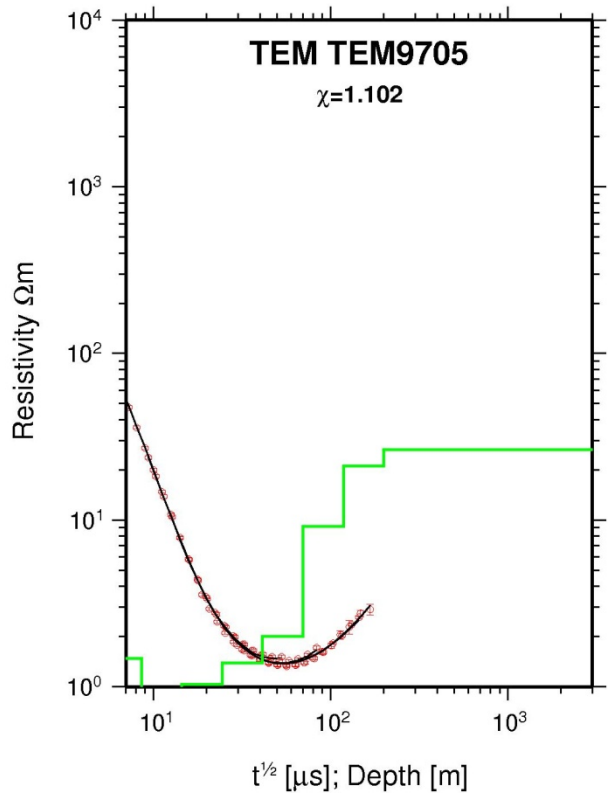
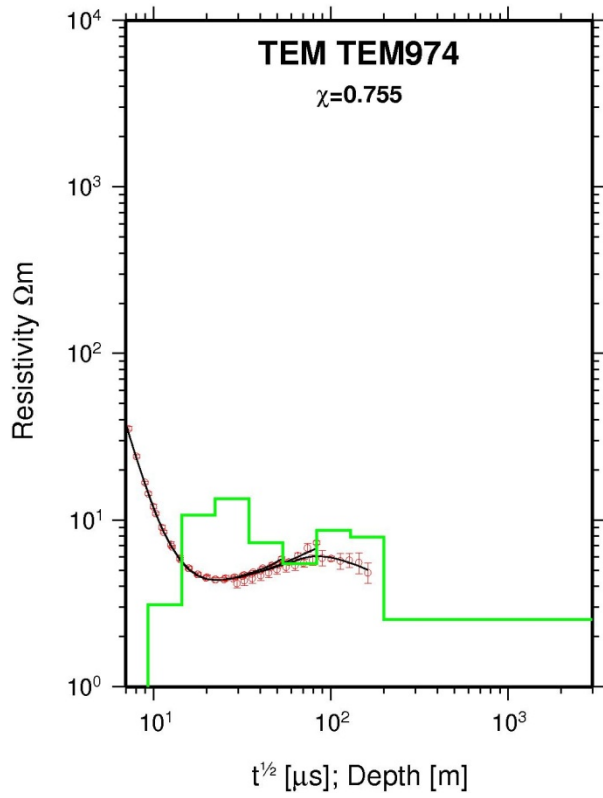
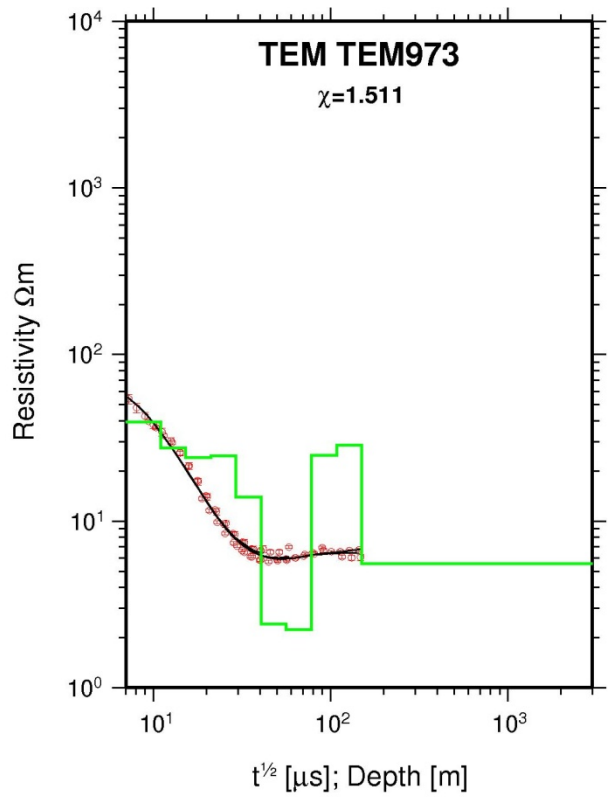
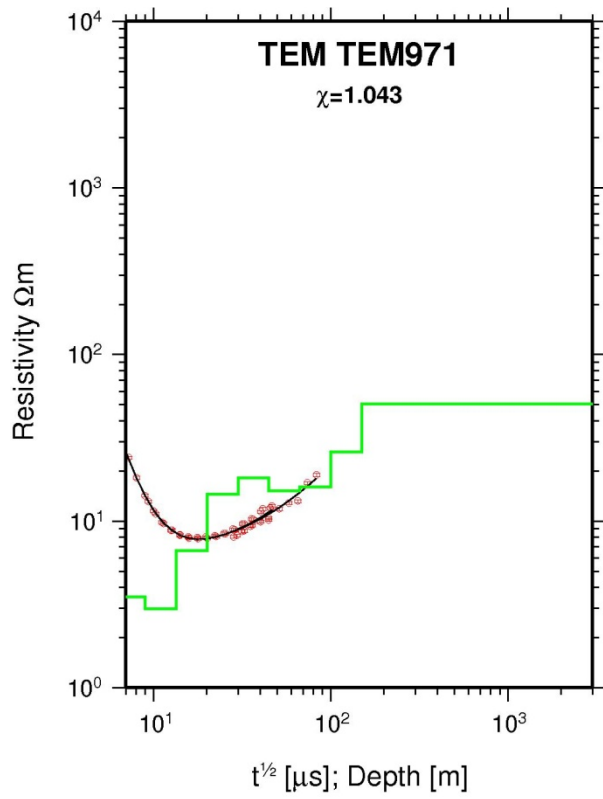


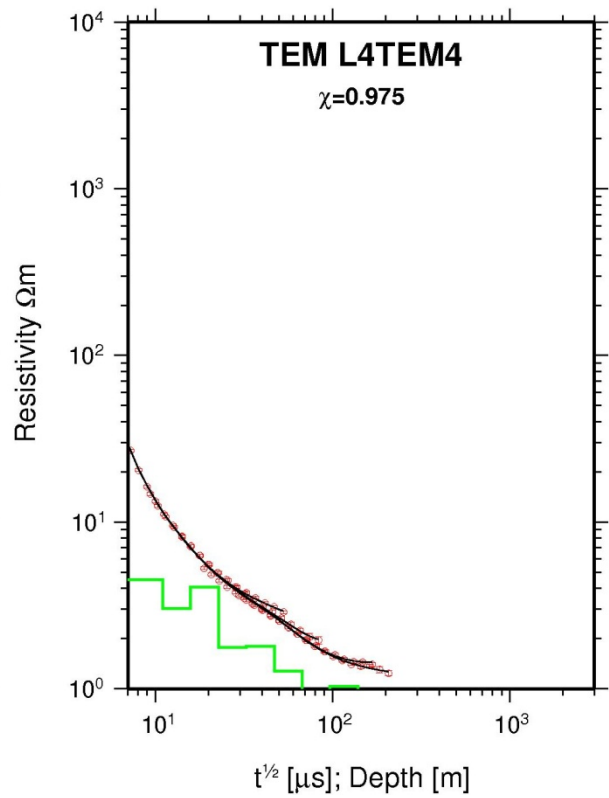
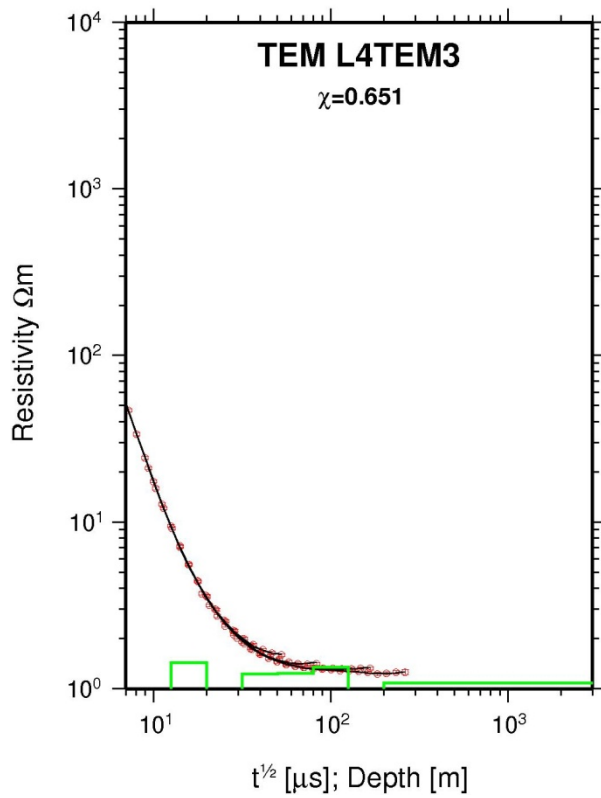
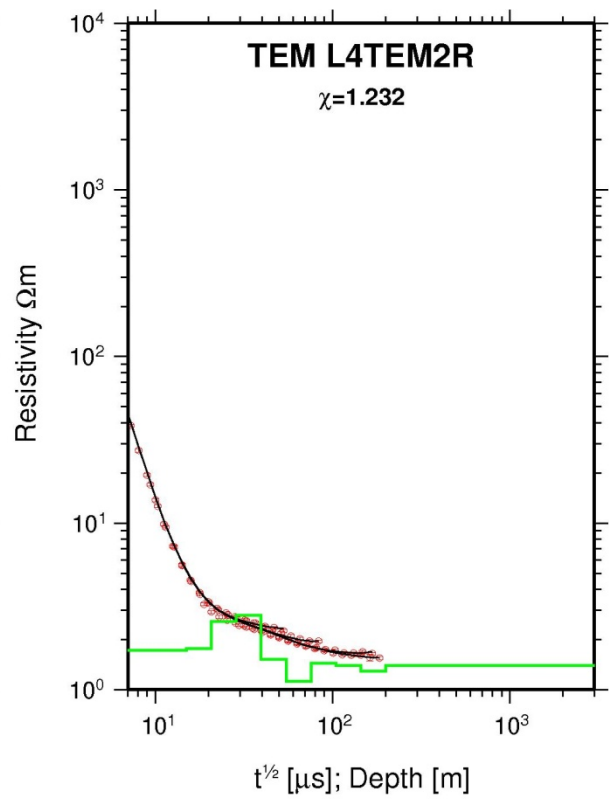
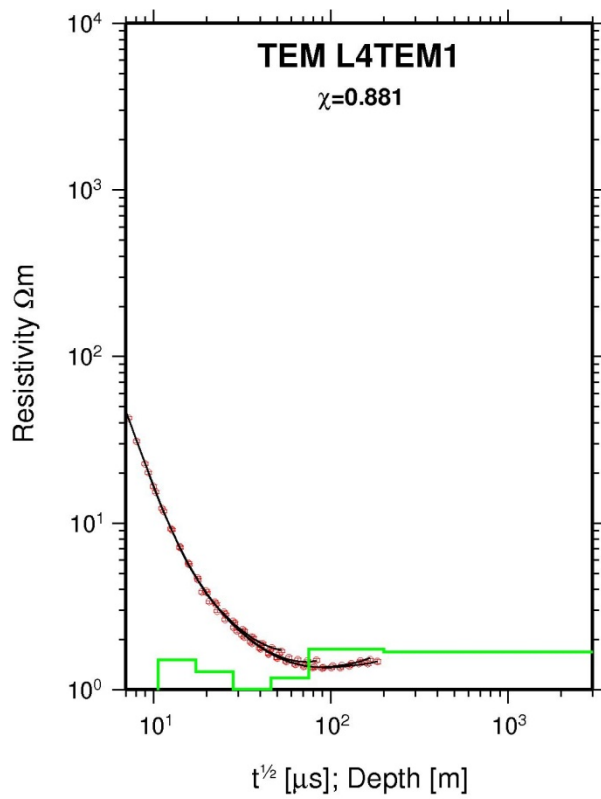


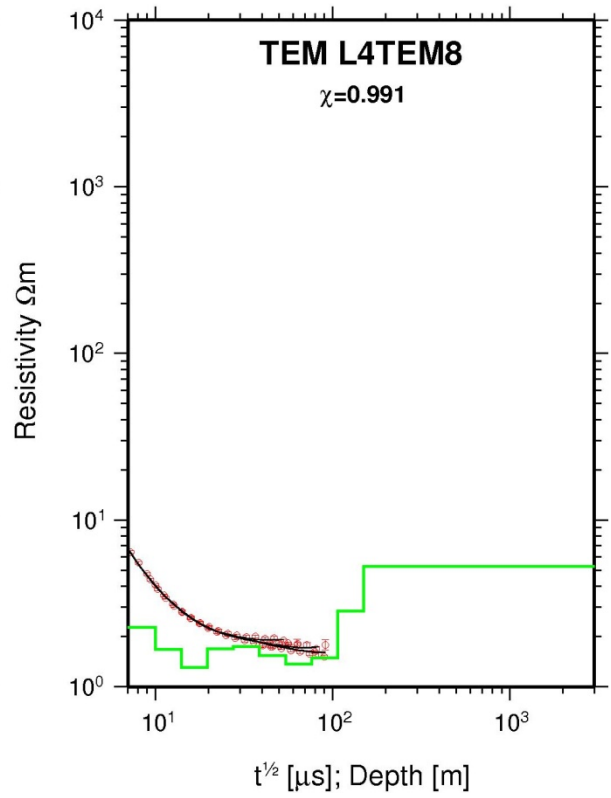
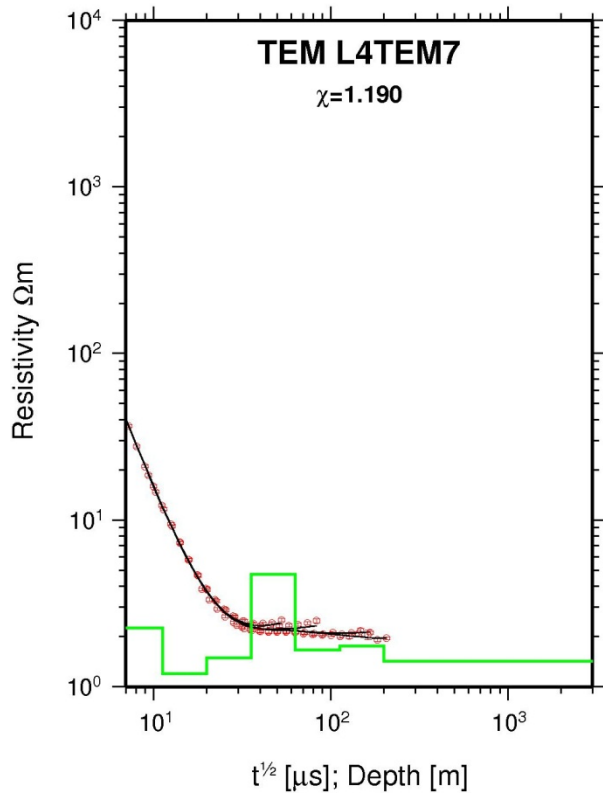
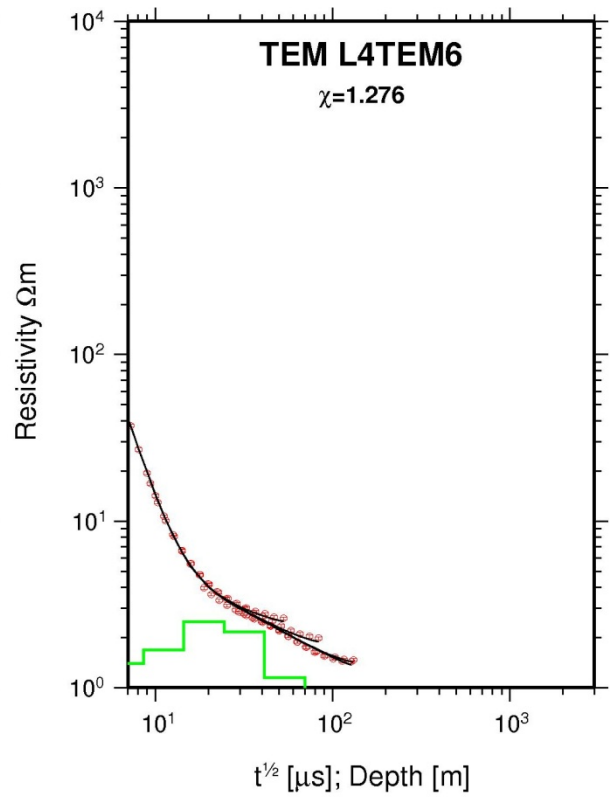
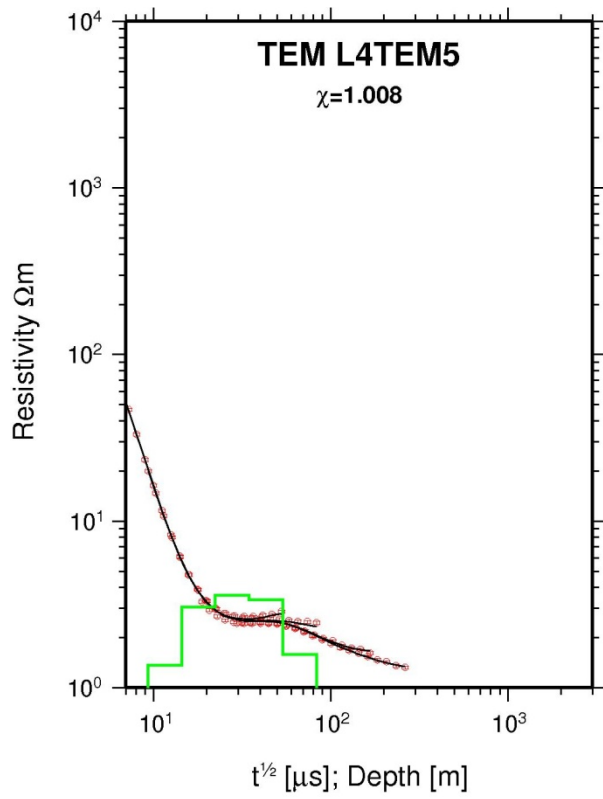


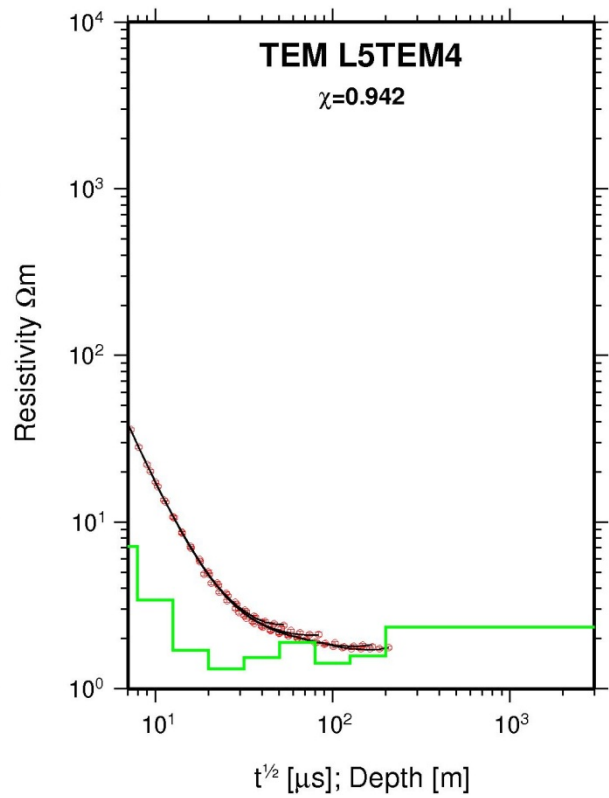
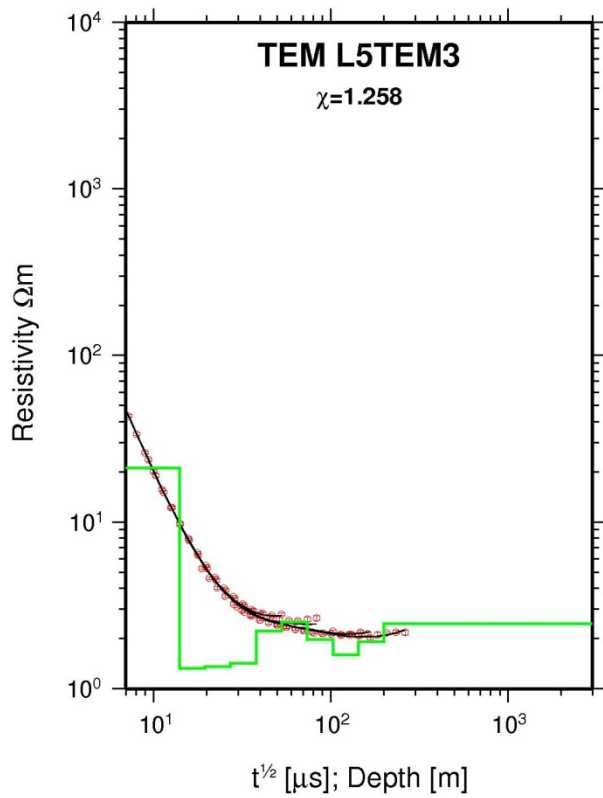
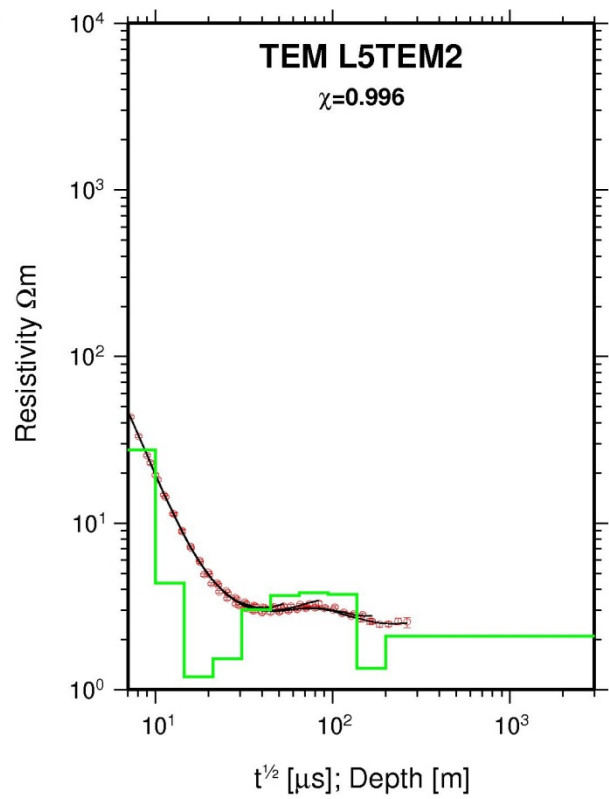
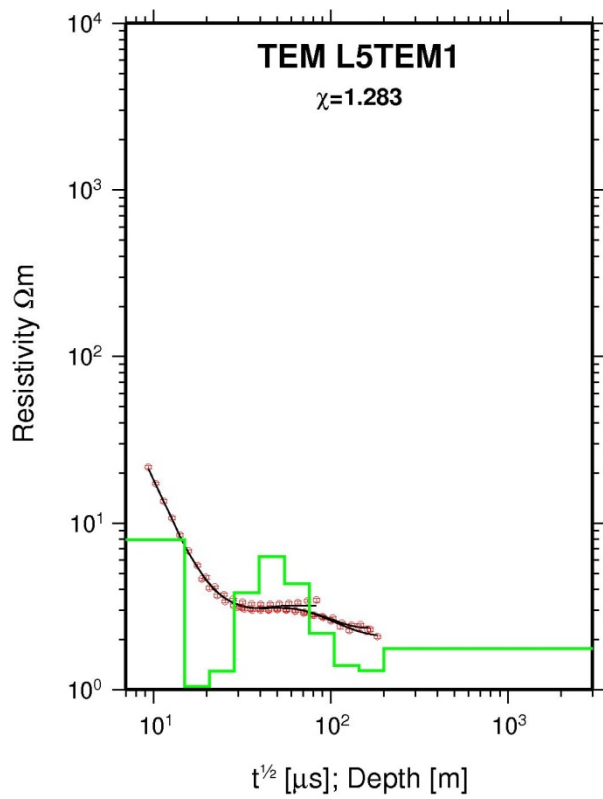


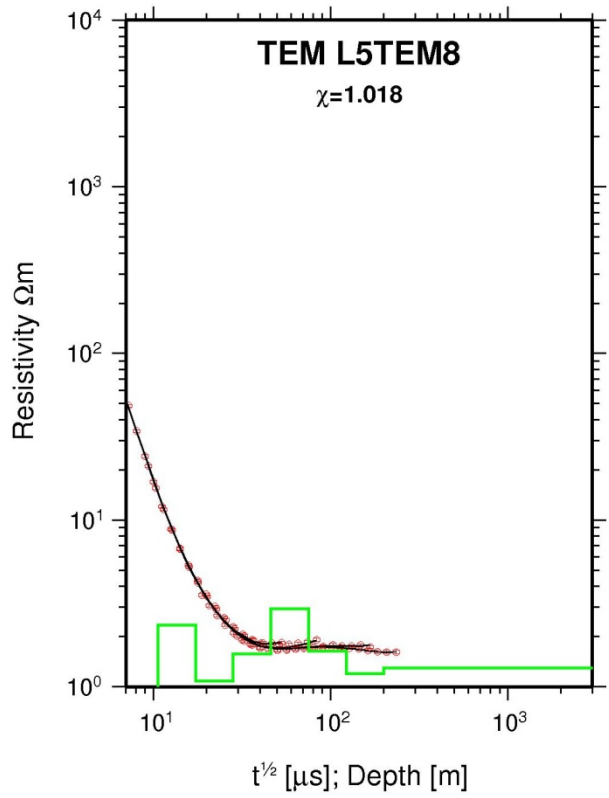
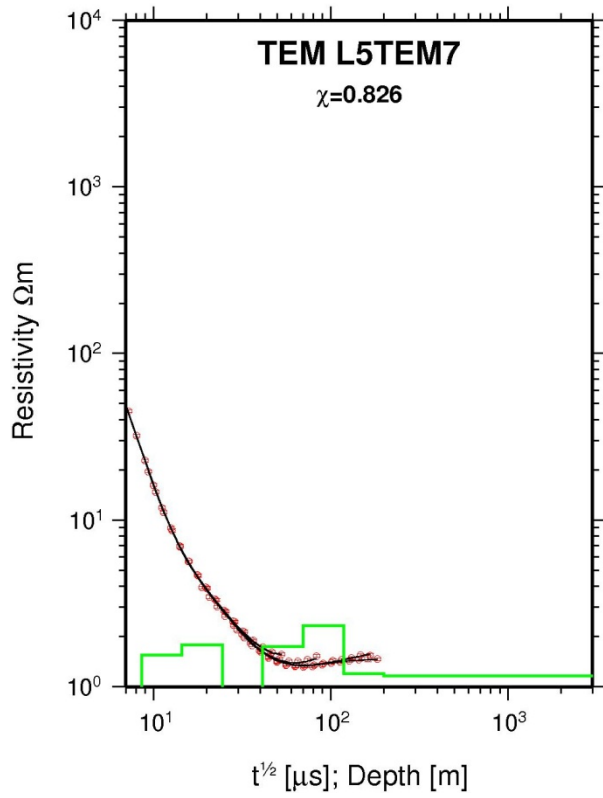
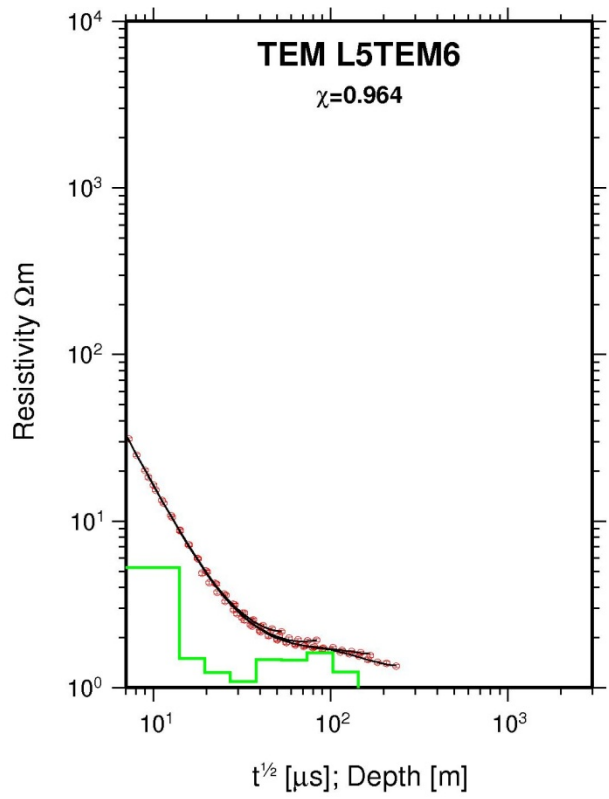
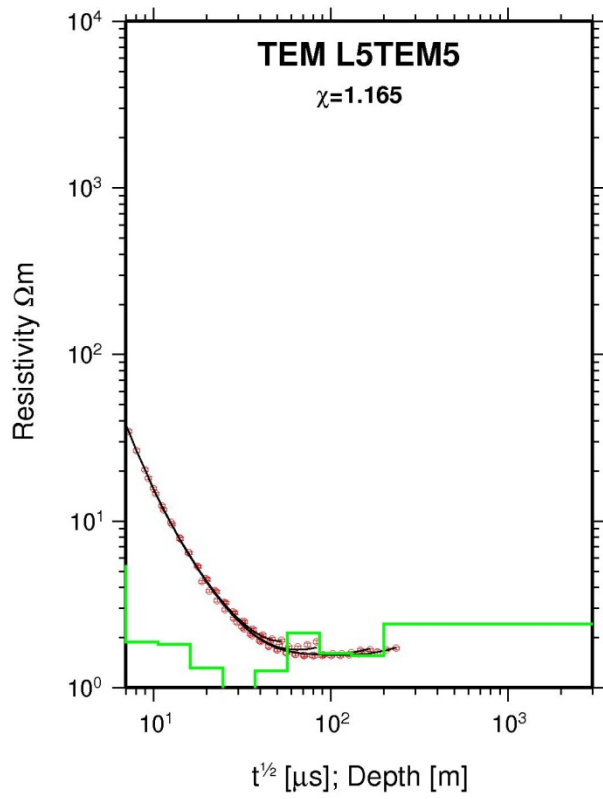


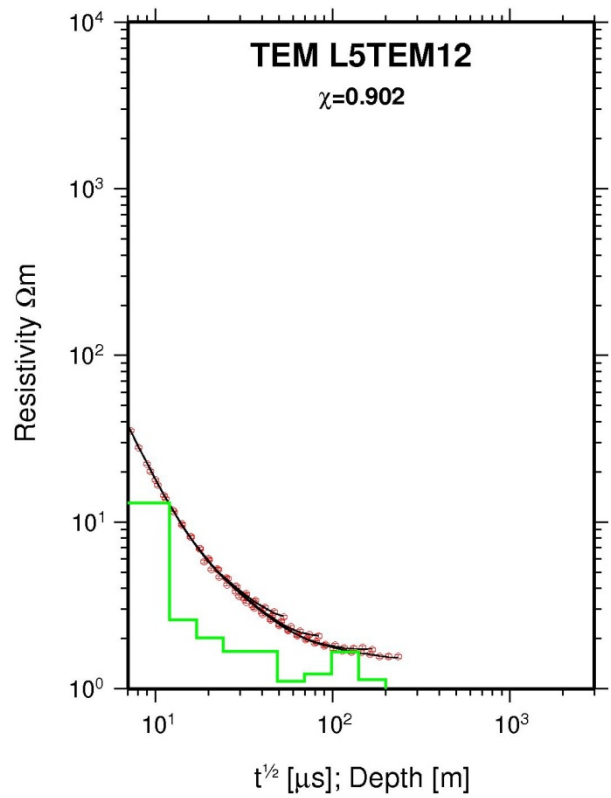
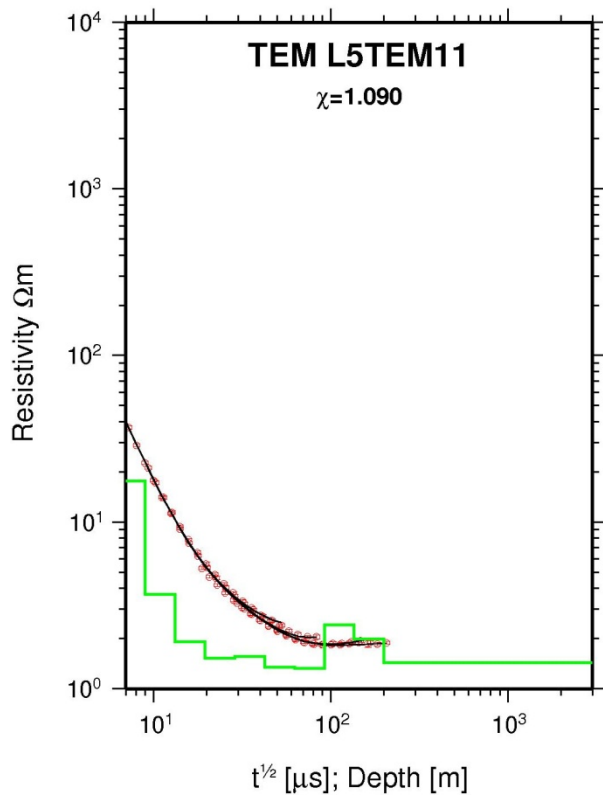
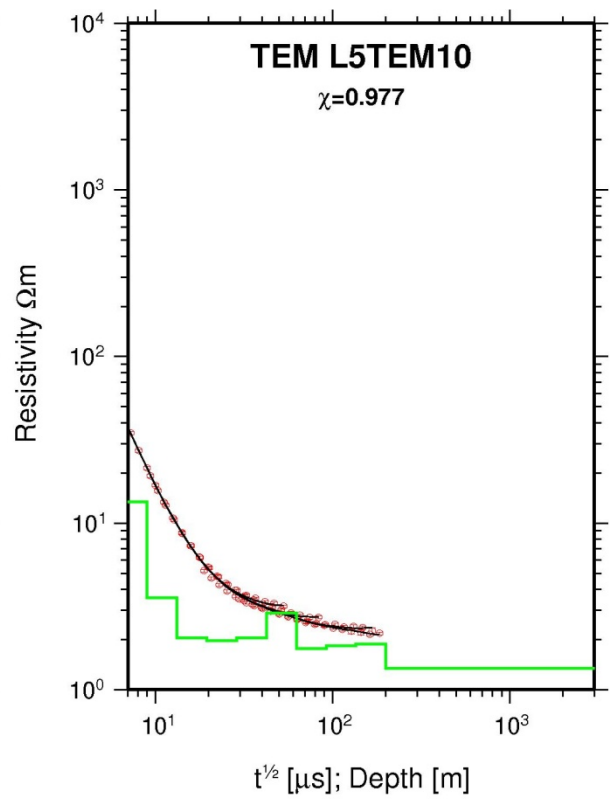
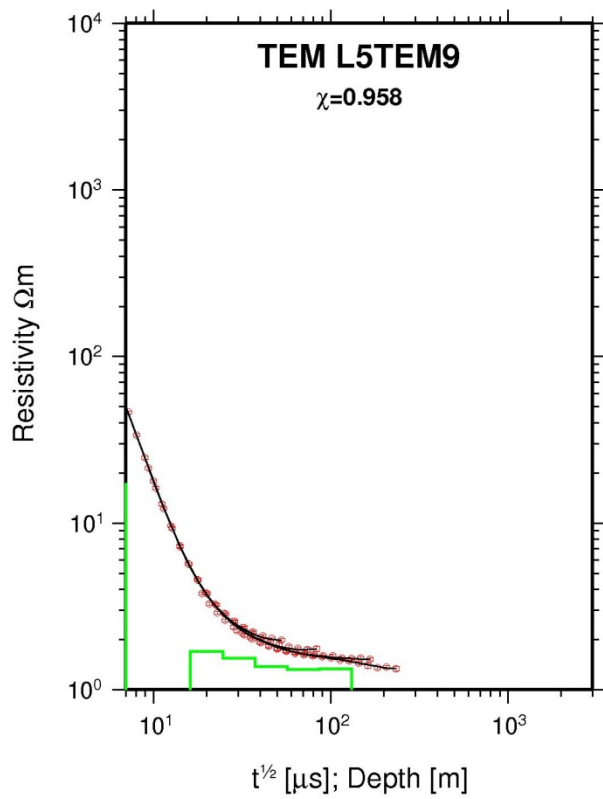


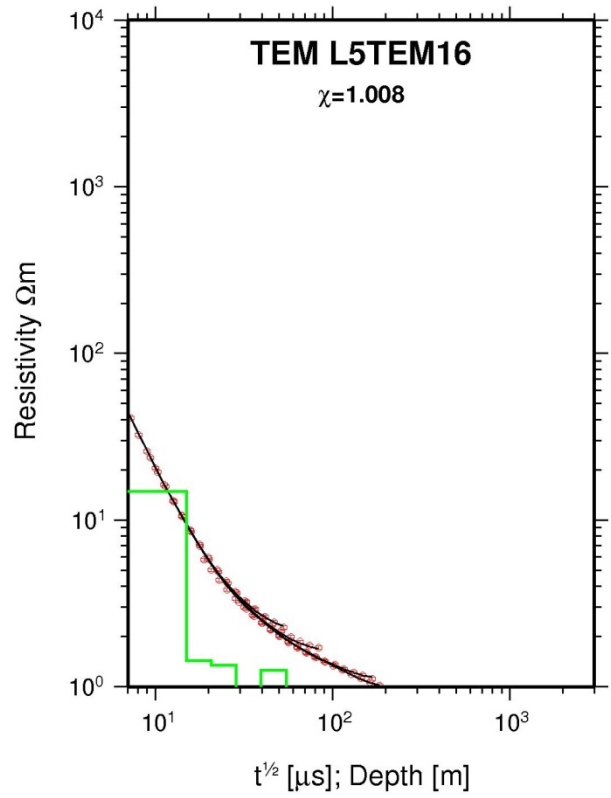
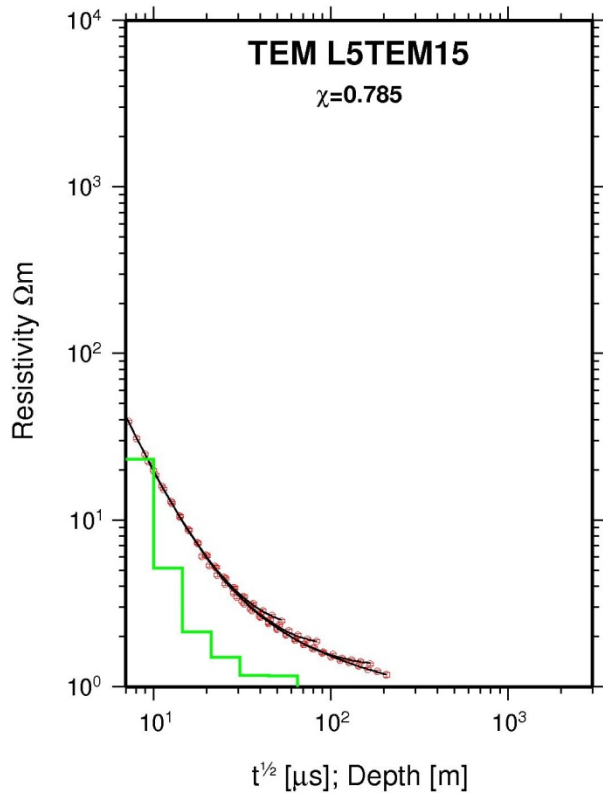
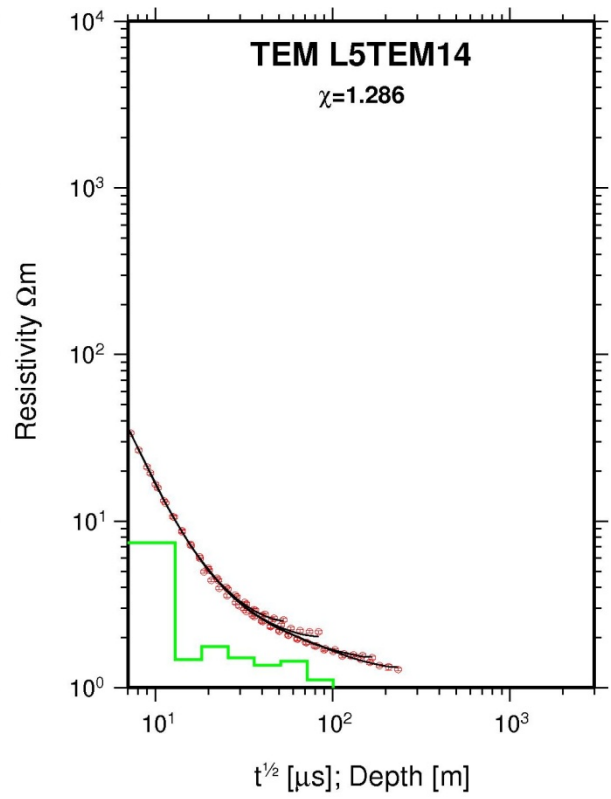
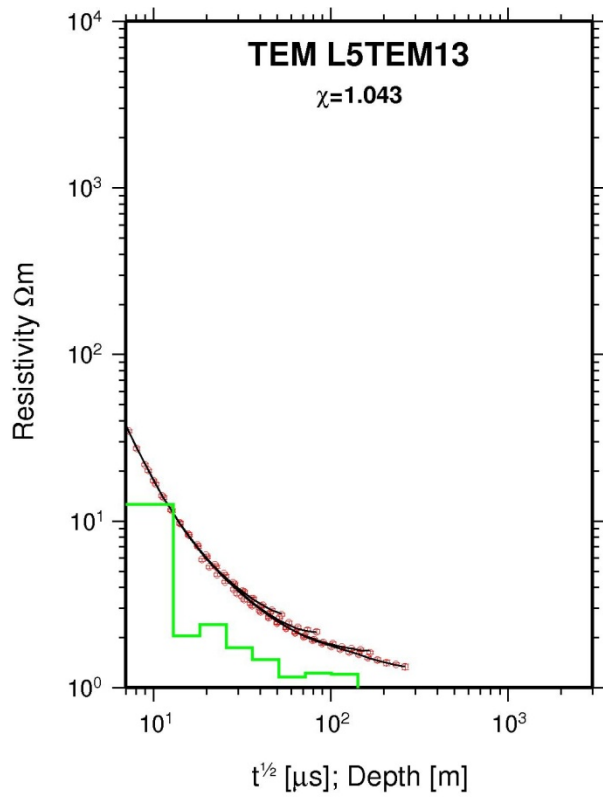


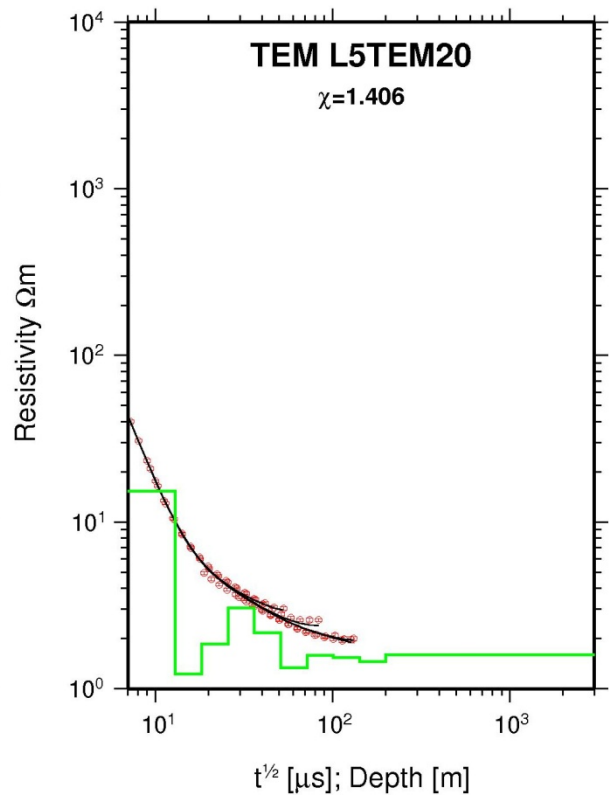
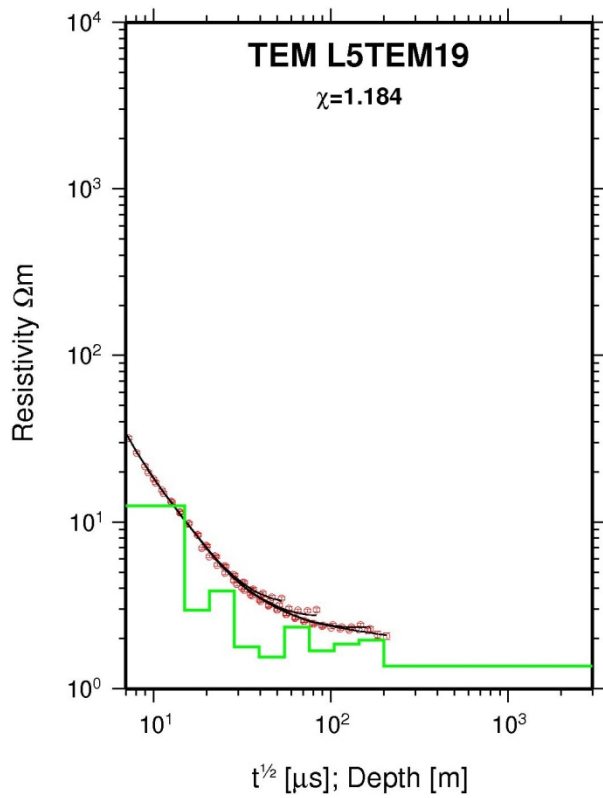
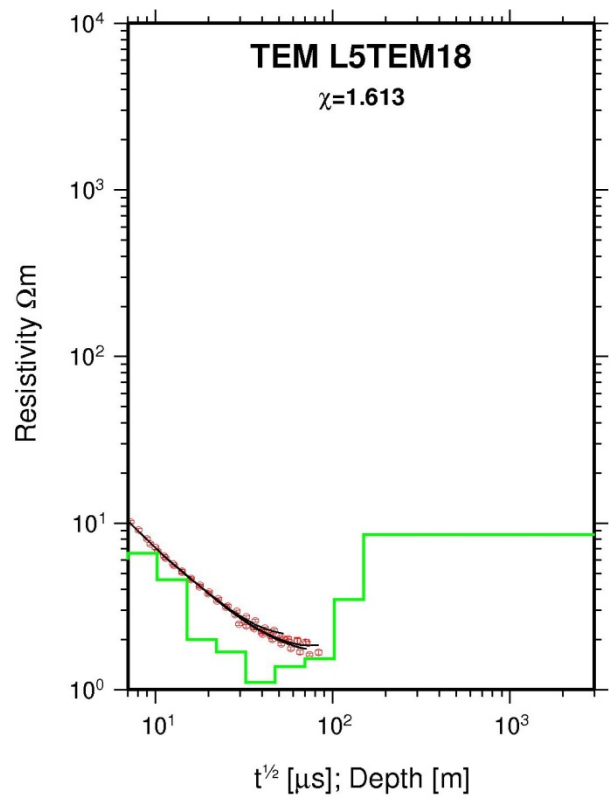
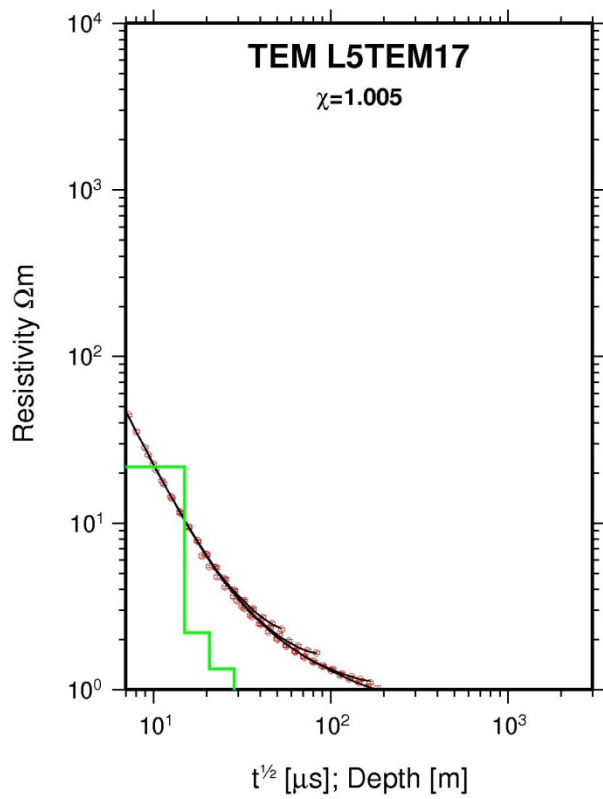


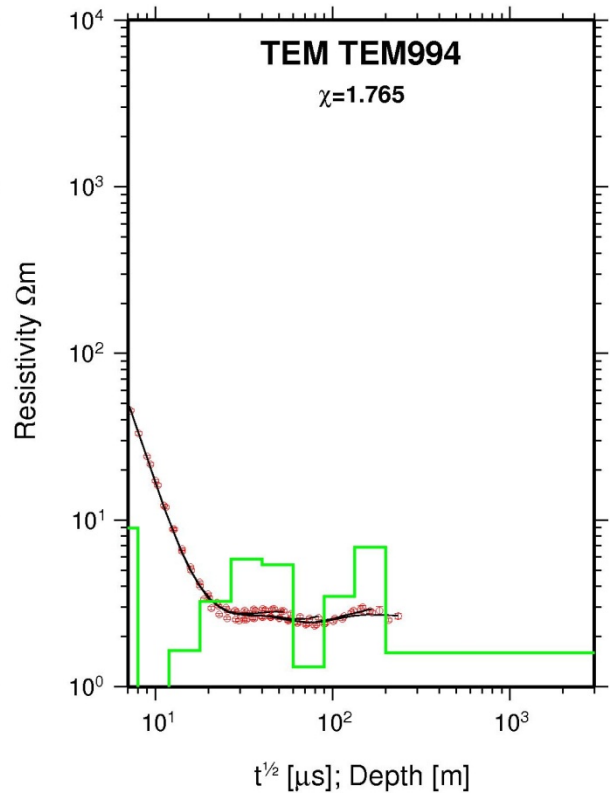
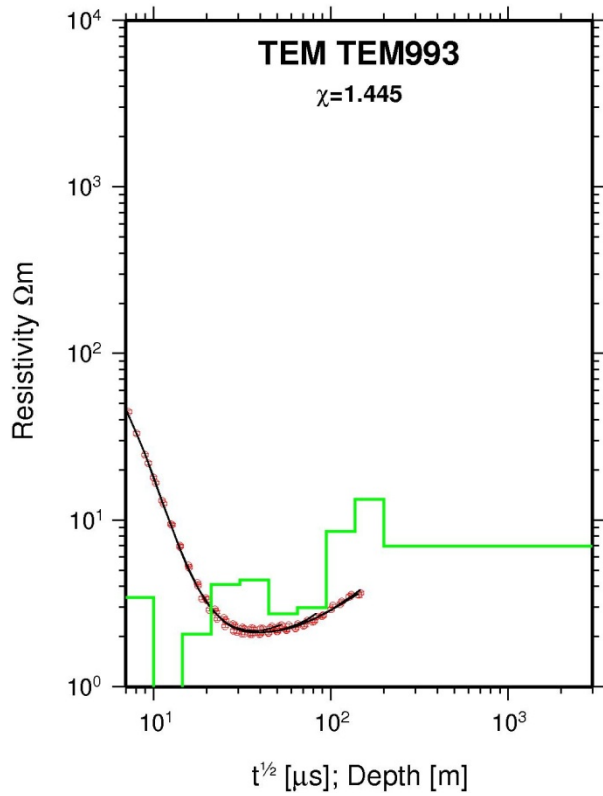
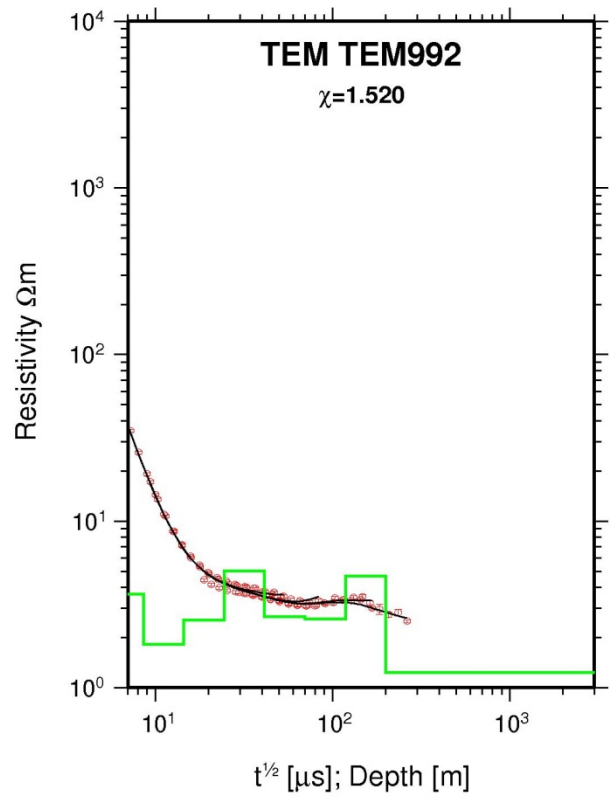
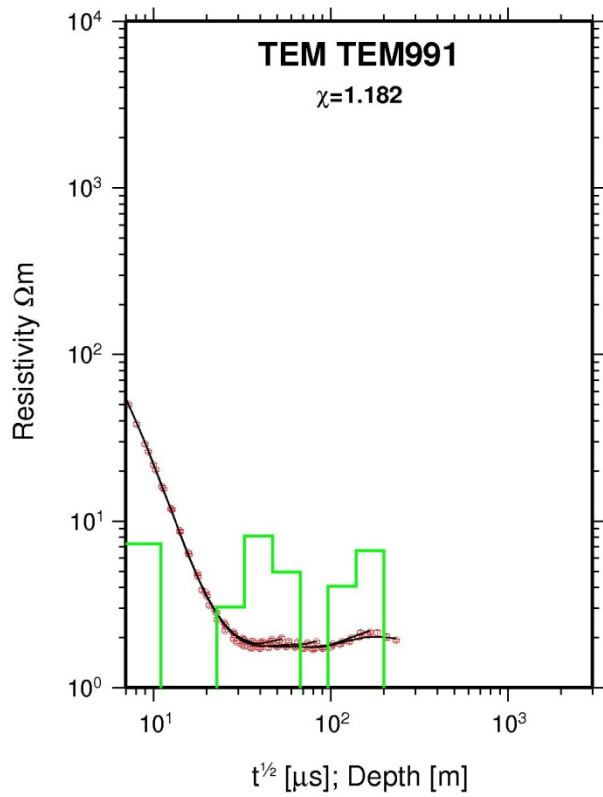


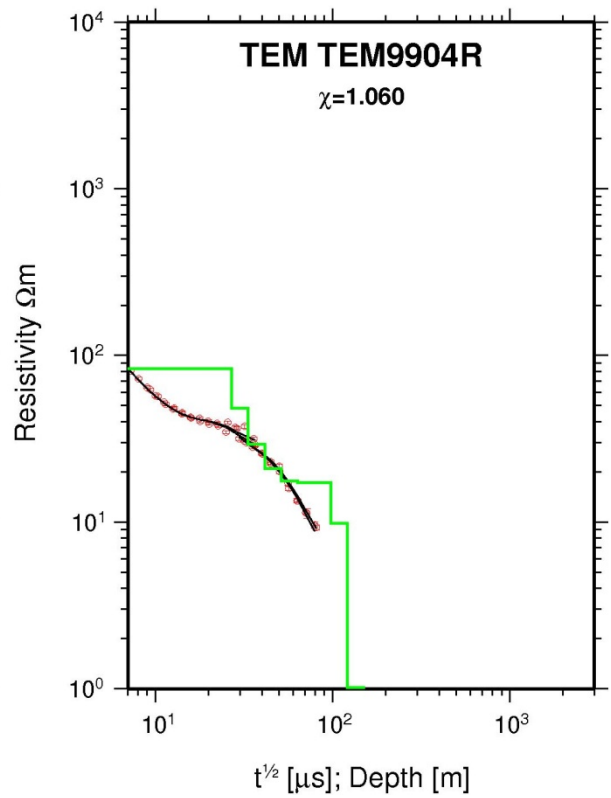
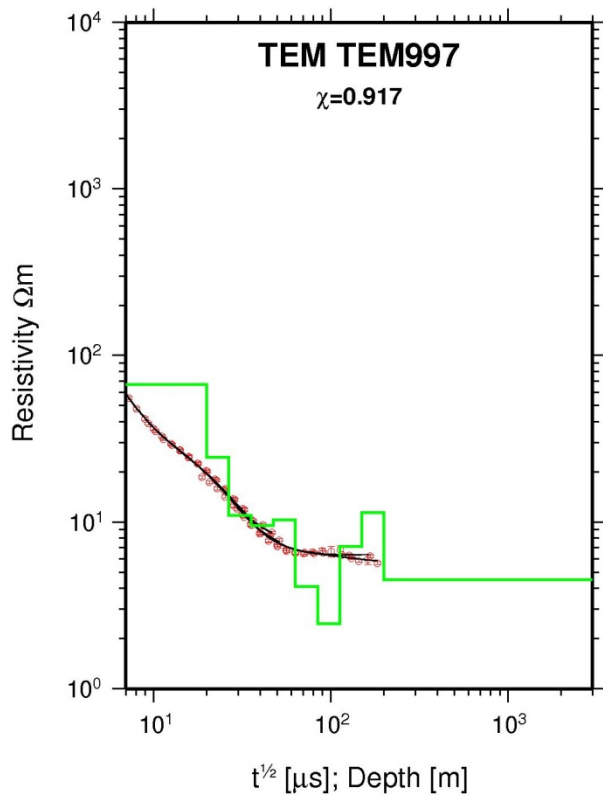
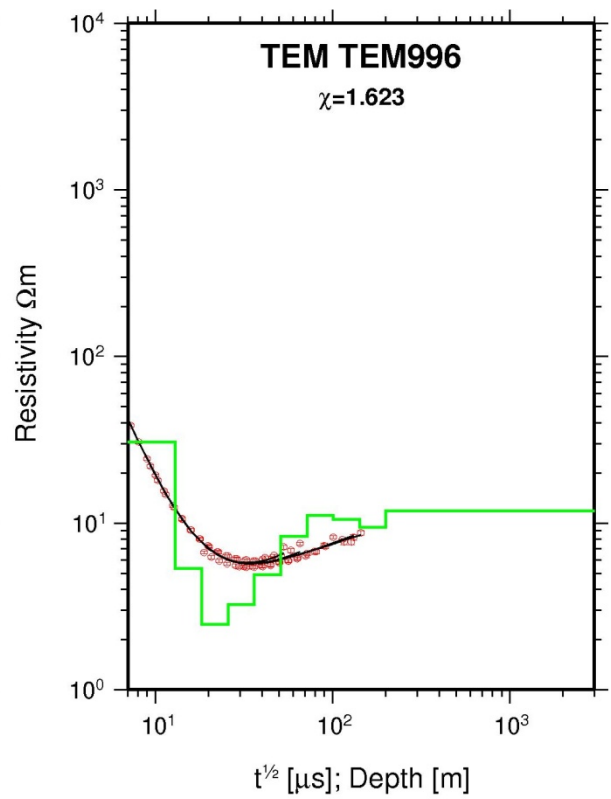
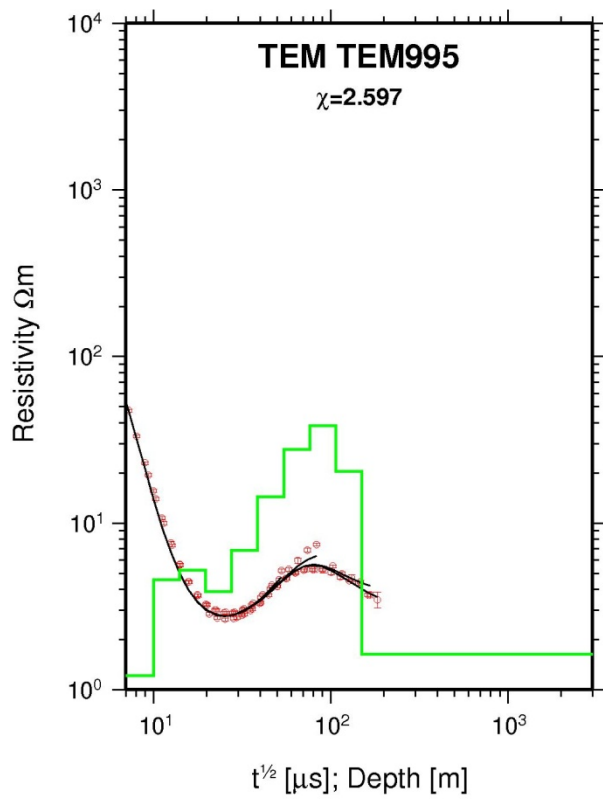


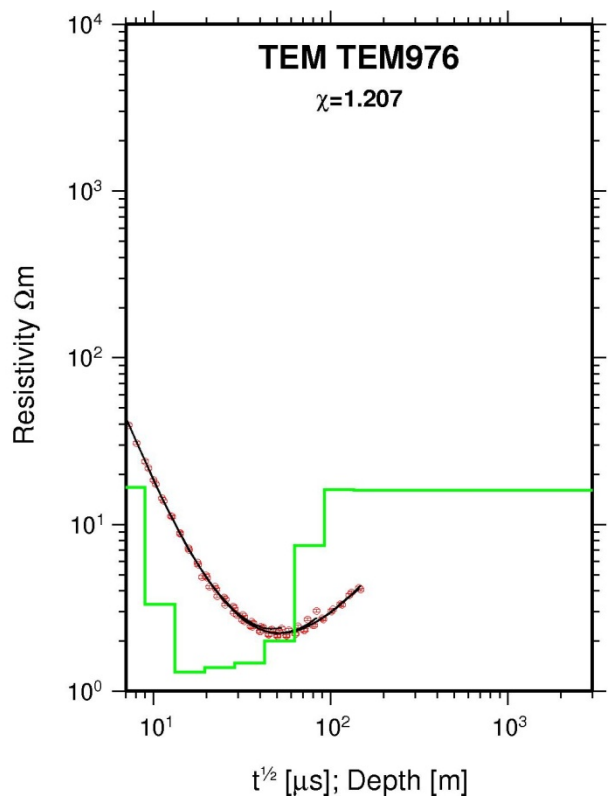
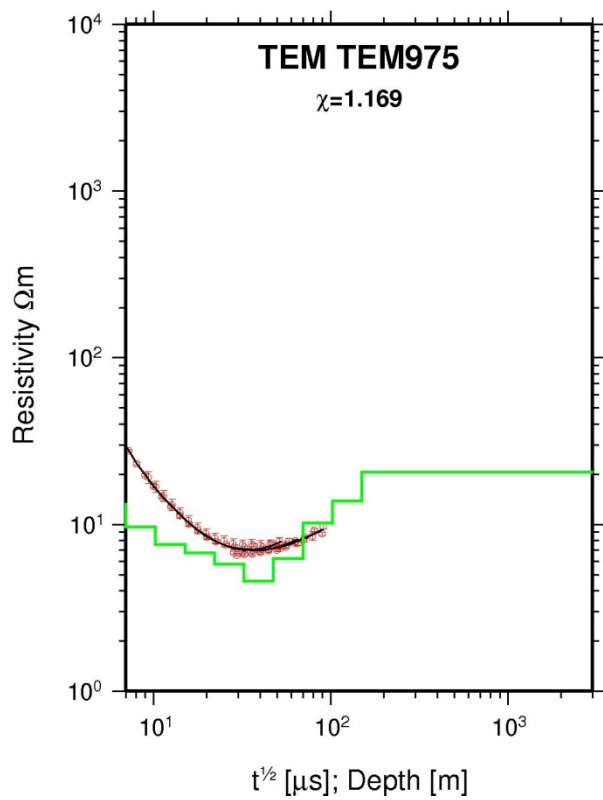
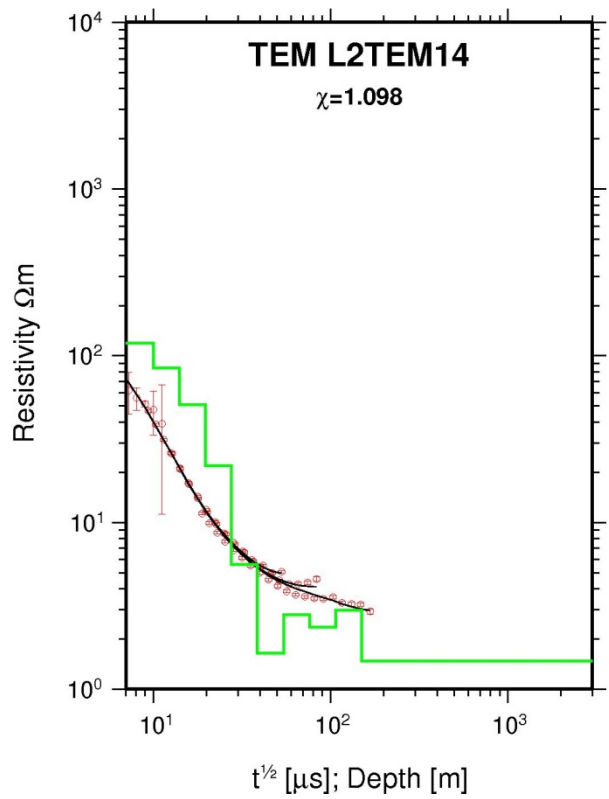
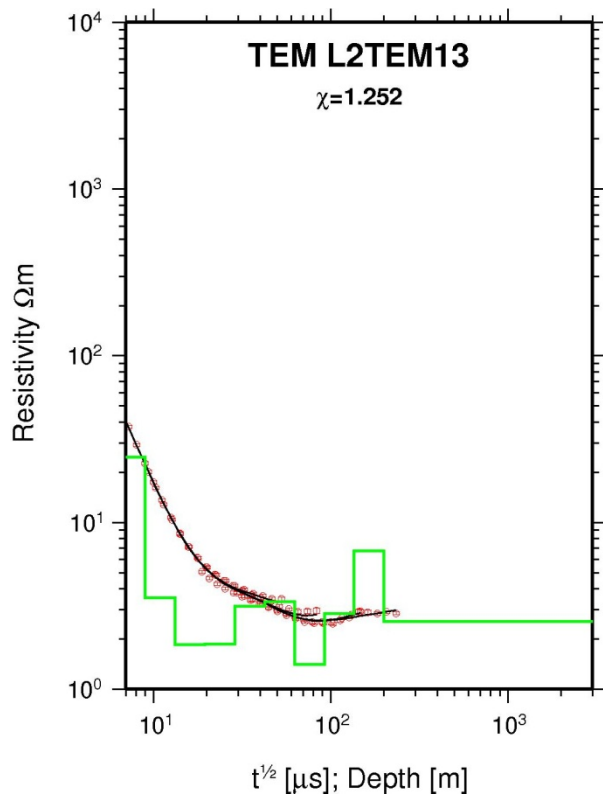








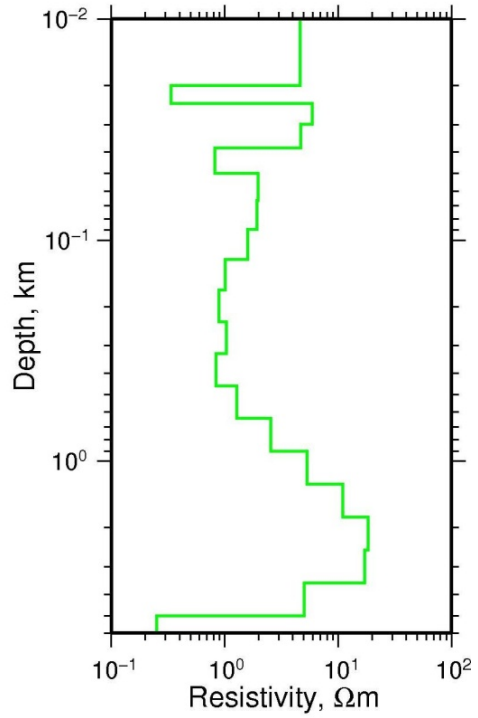
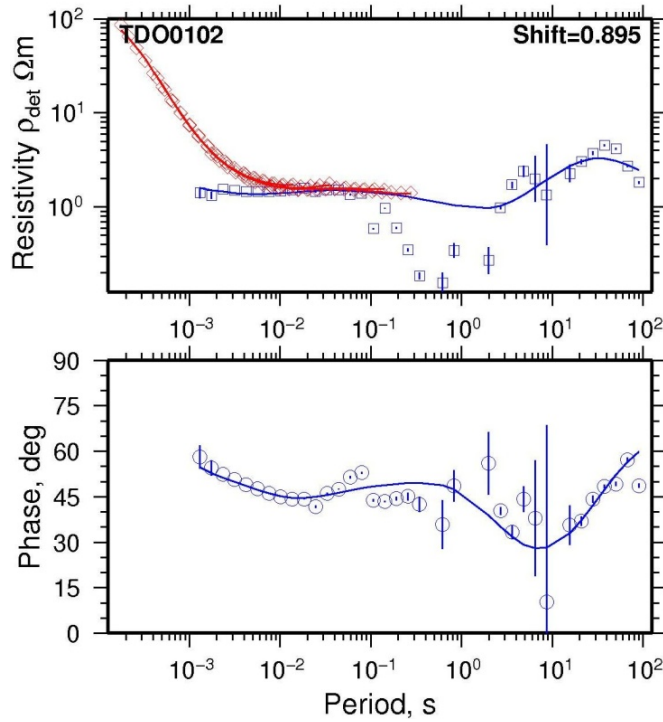




APPENDIX III: 1-D joint inversion of TEM and MT using TEMTD

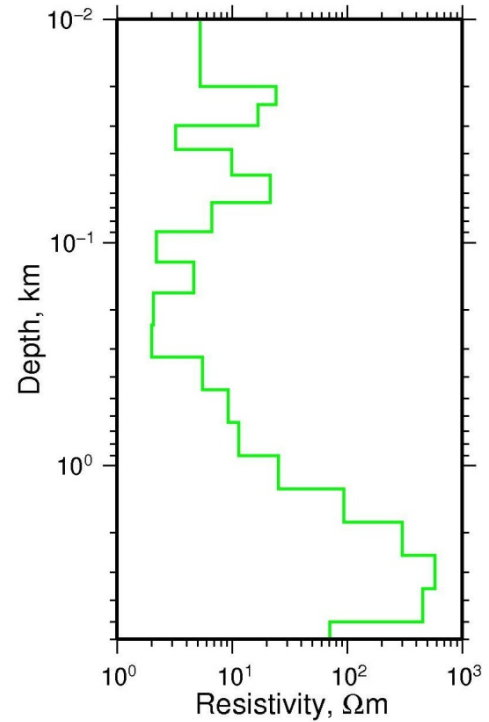
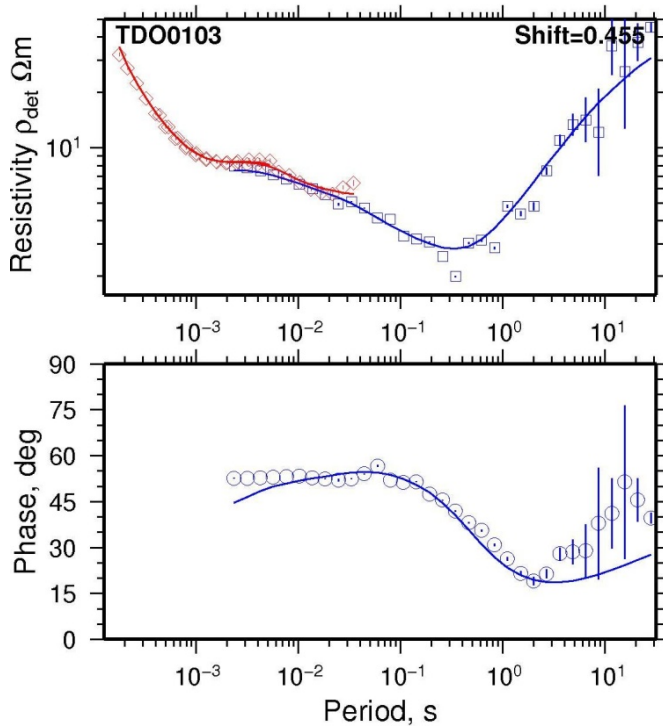
TDO0102

$\chi=2.2743$



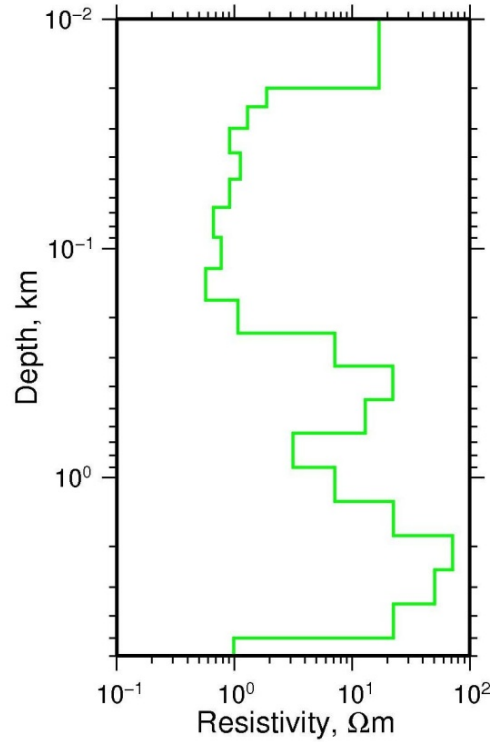
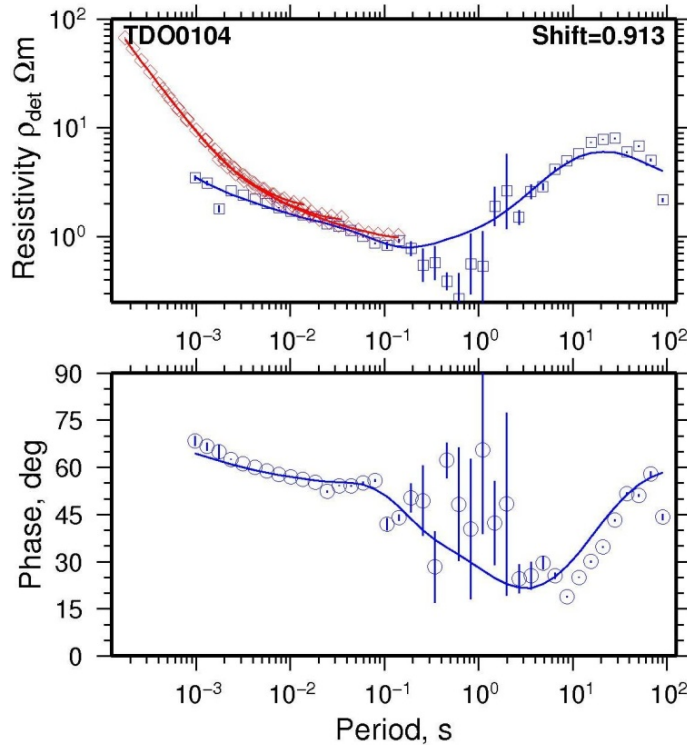
TDO0103

$\chi=3.5717$



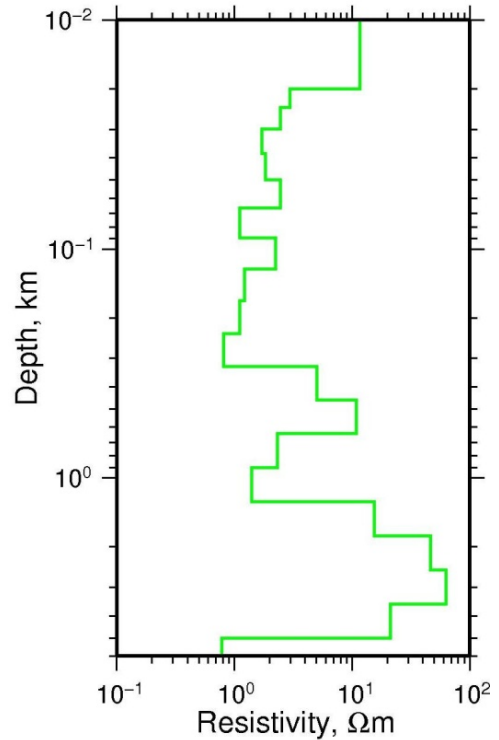
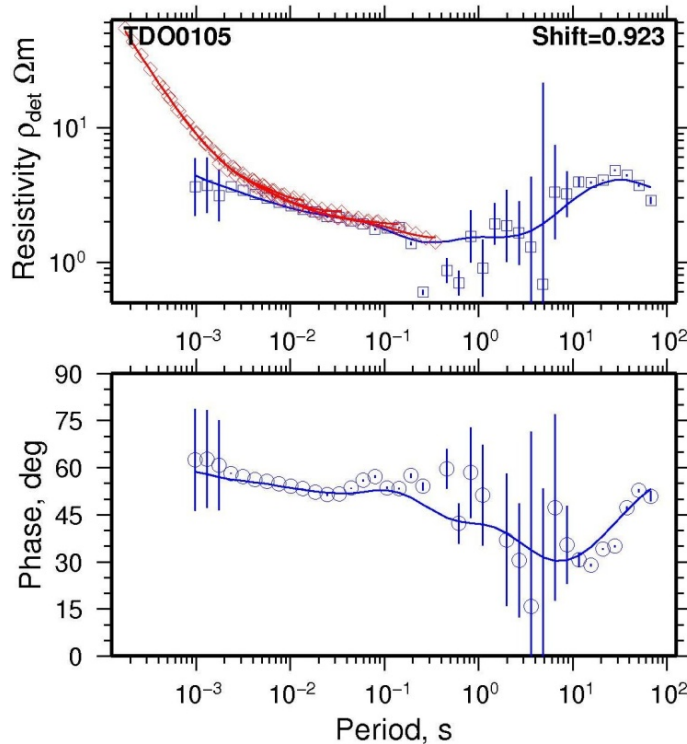
TDO0104

$\chi=4.109$



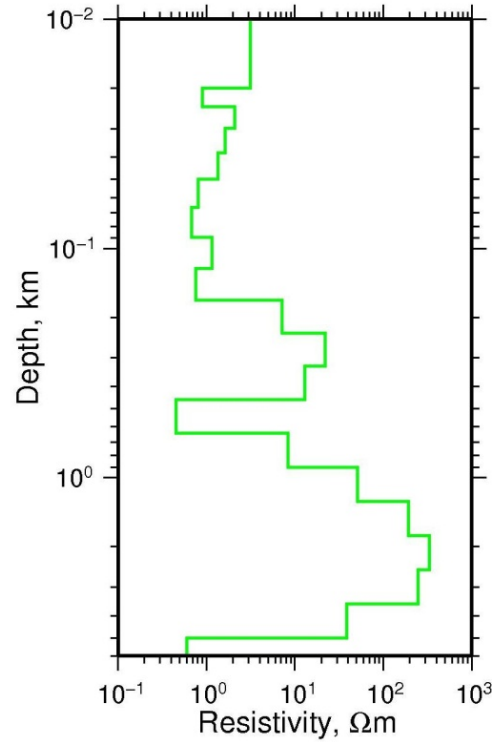
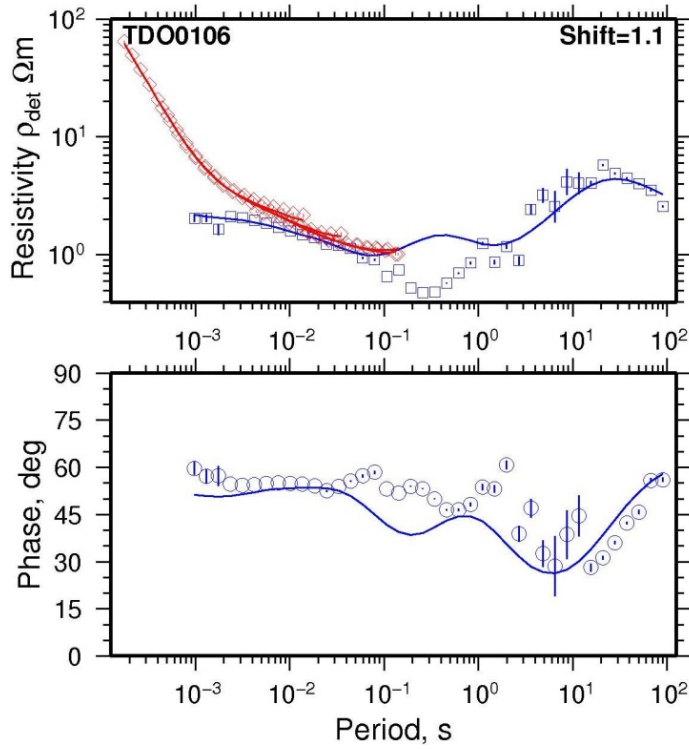
TDO0105

$\chi=6.9107$



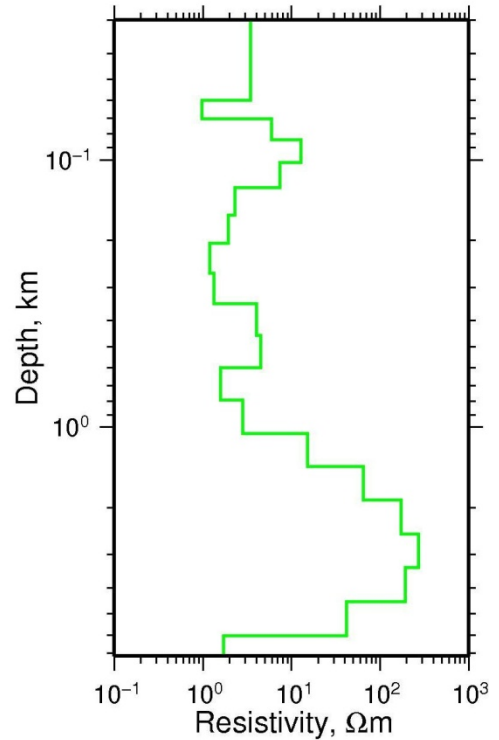
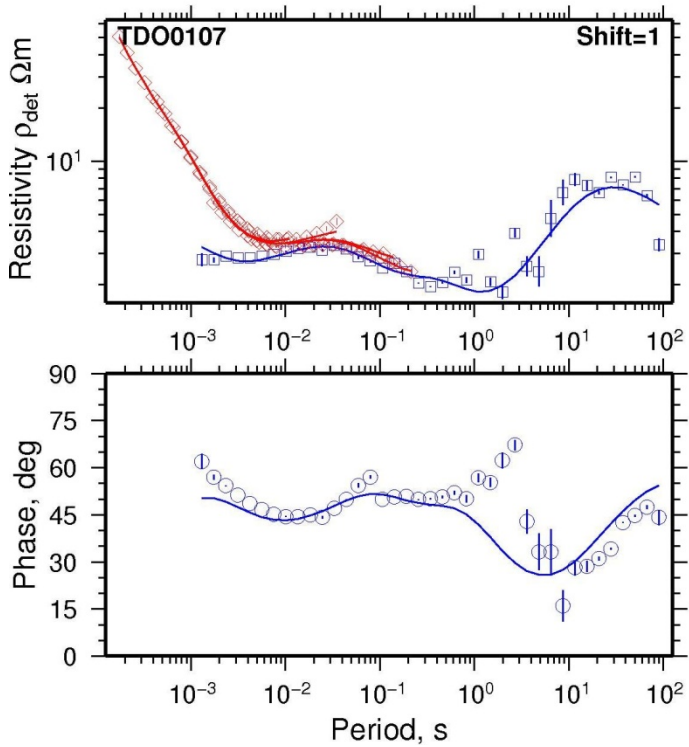
TDO0106

$\chi=3.9149$



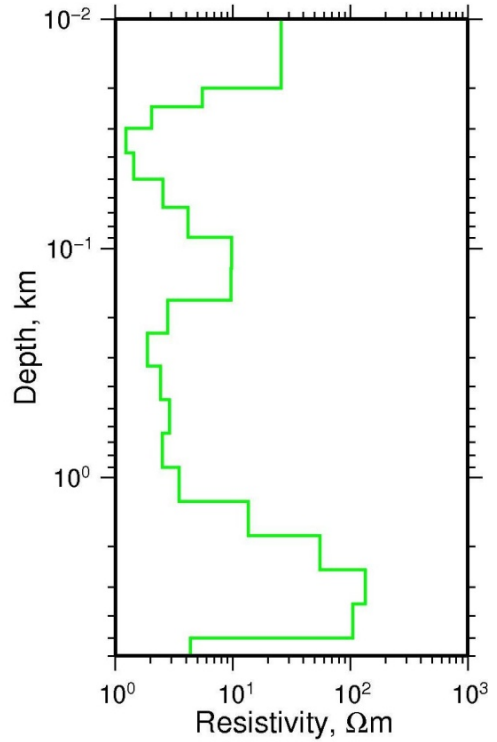
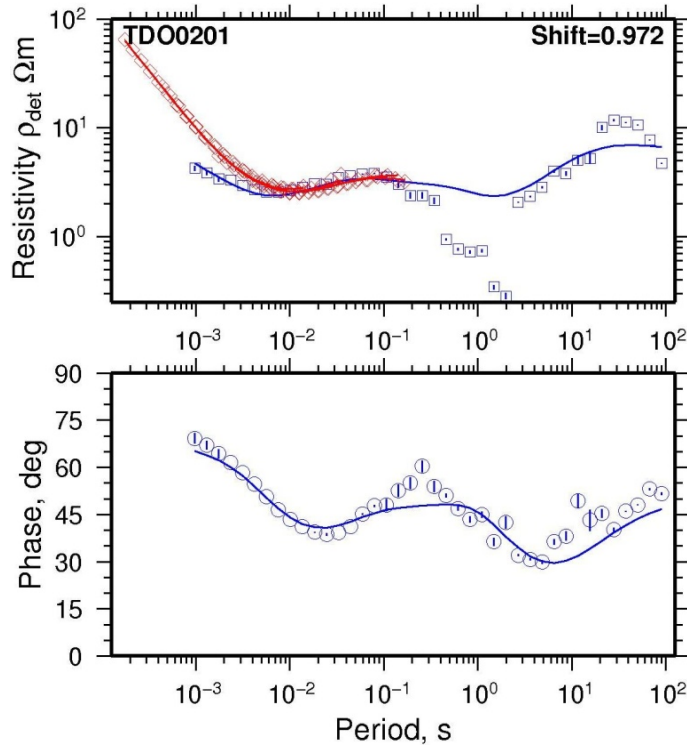
TDO0107

$\chi=3.852$



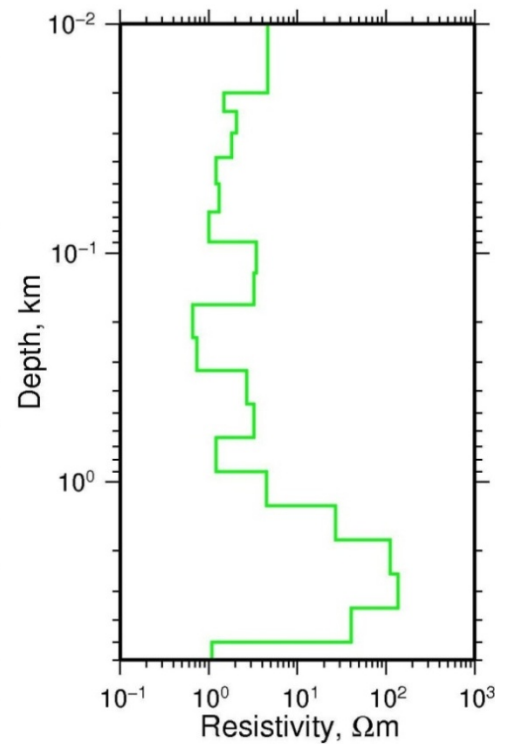
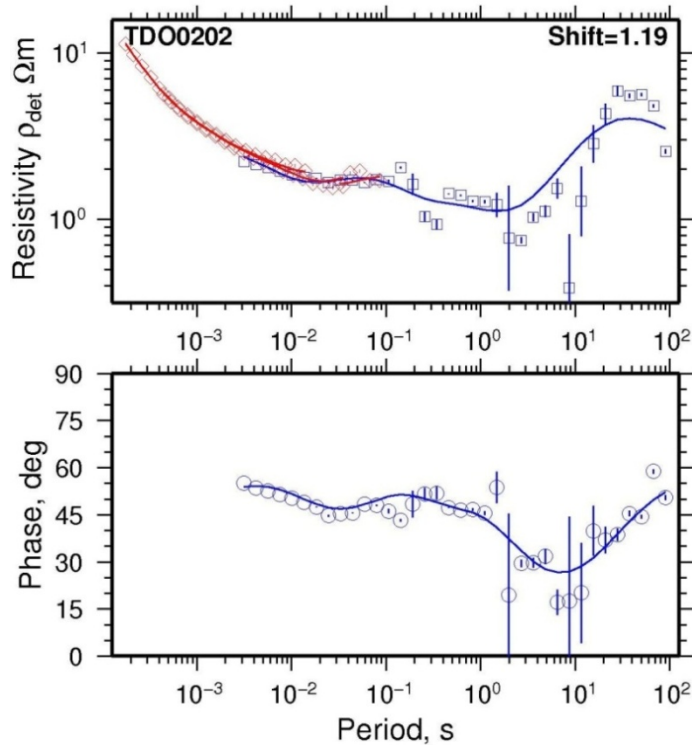
TDO0201

$\chi=3.329$



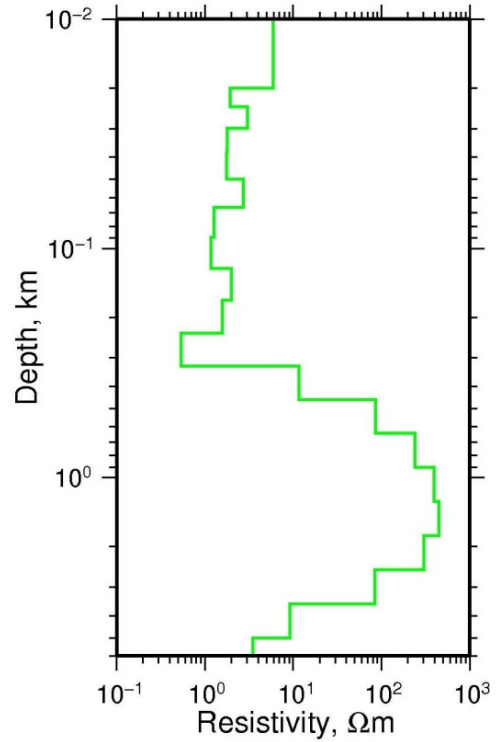
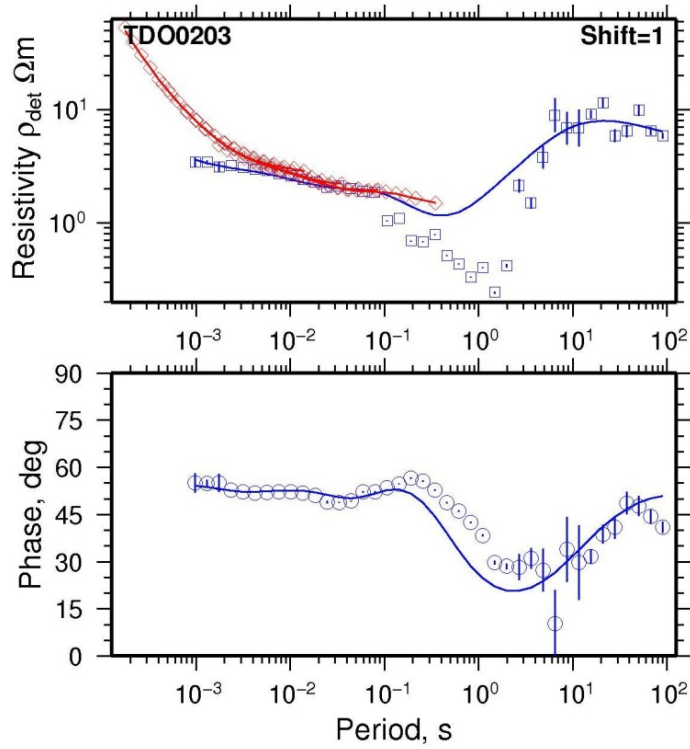
TDO0202

$\chi=3.5541$



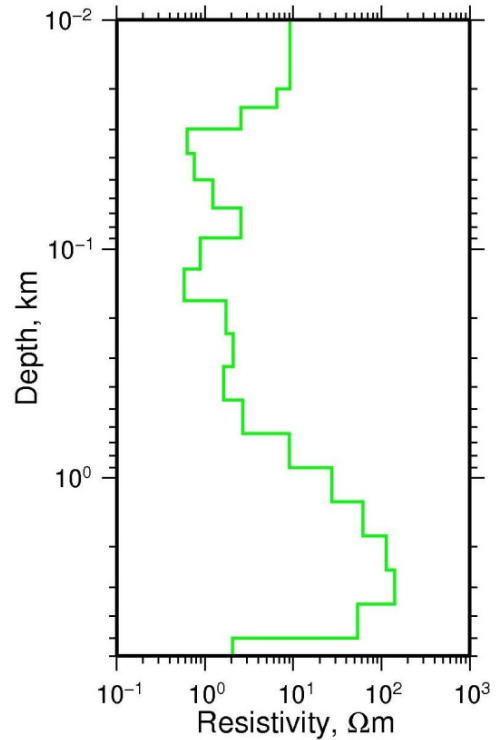
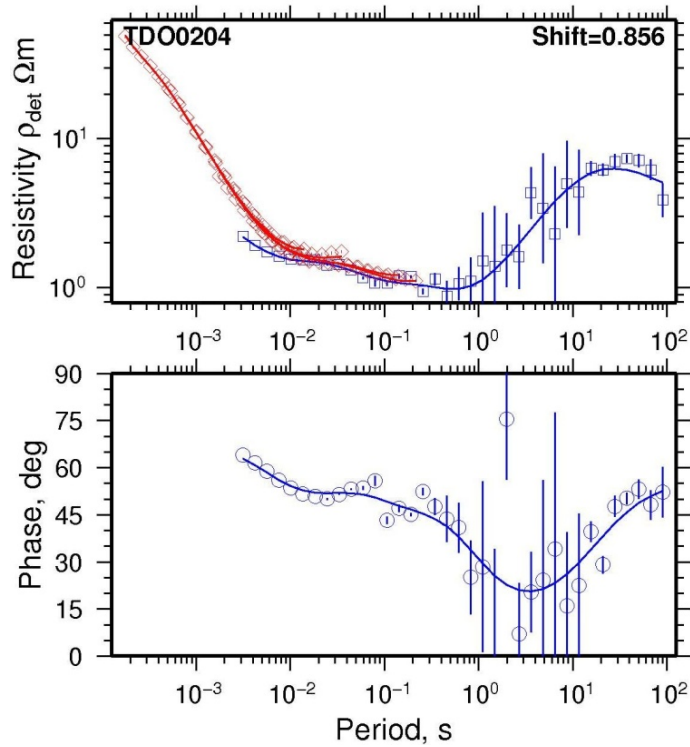
TDO0203

$\chi=2.462$



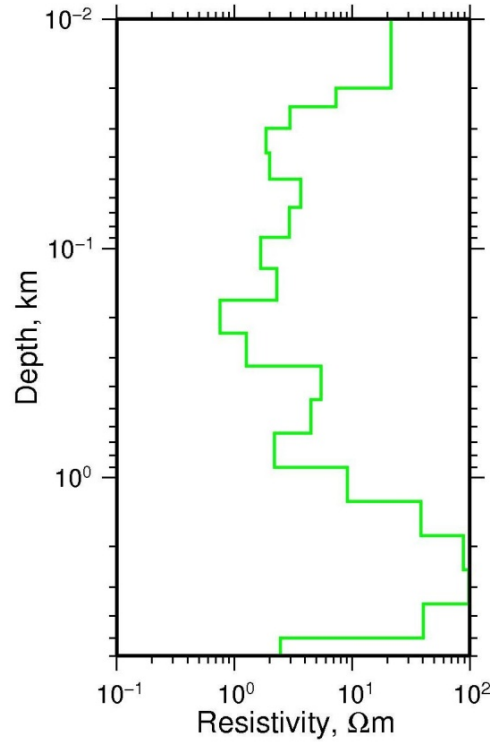
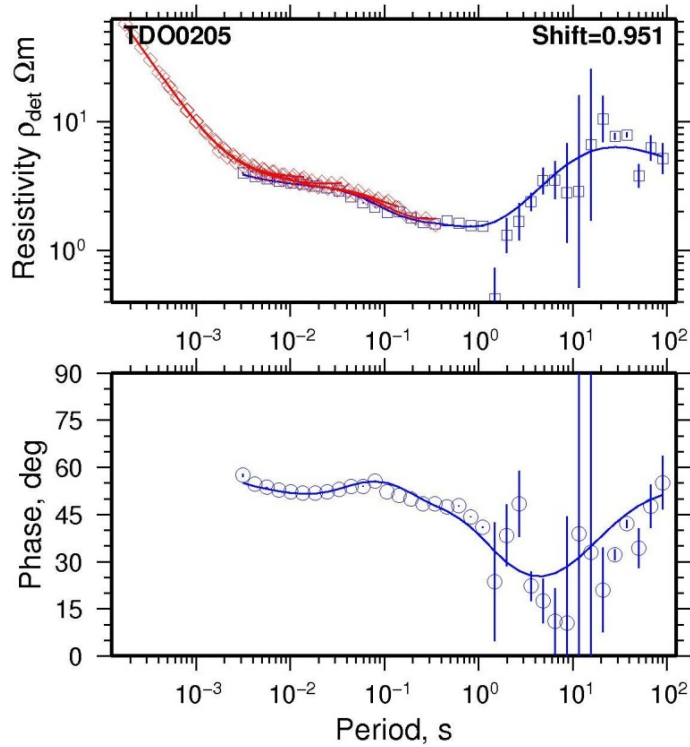
TDO0204

$\chi=1.9135$



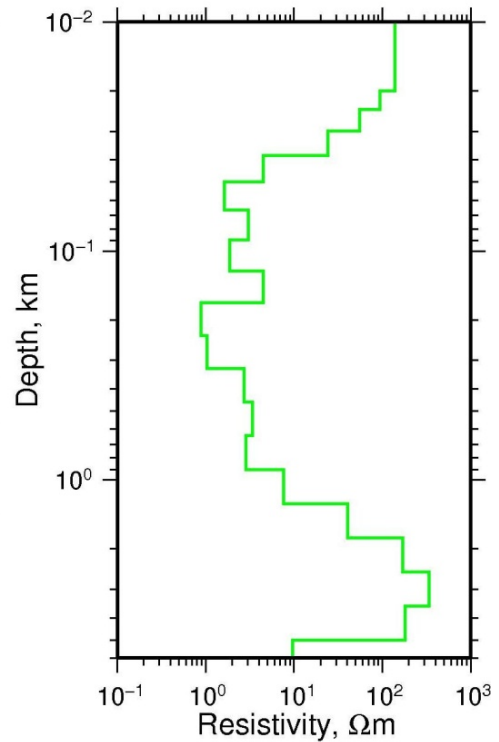
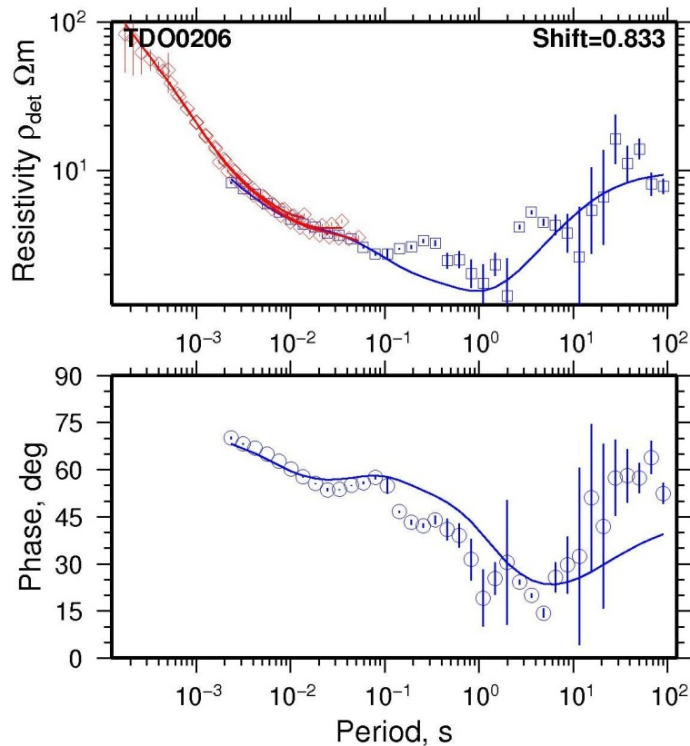
TDO0205

$\chi=2.609$



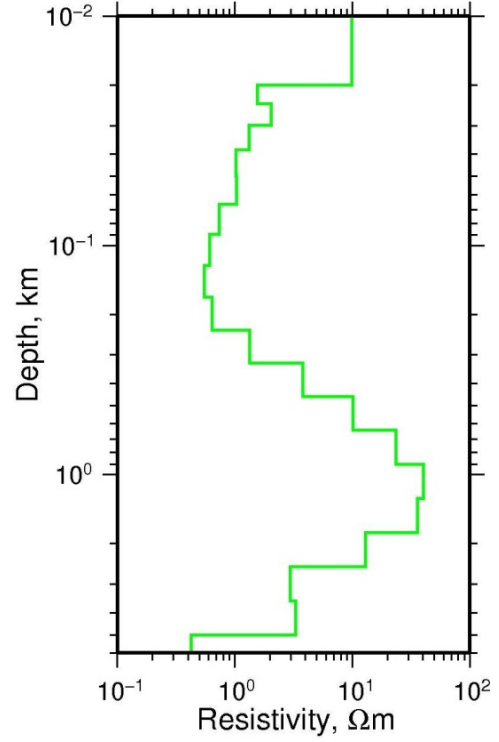
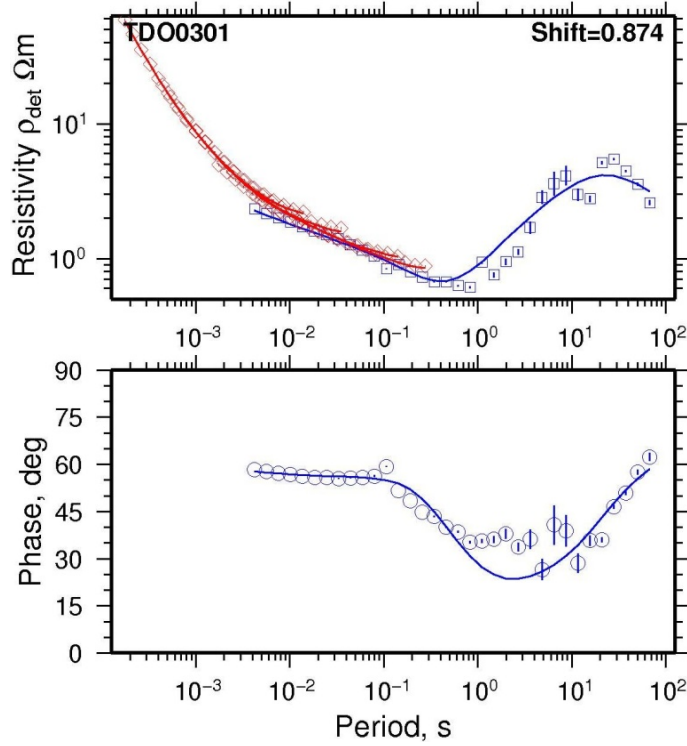
TDO0206

$\chi=3.3368$



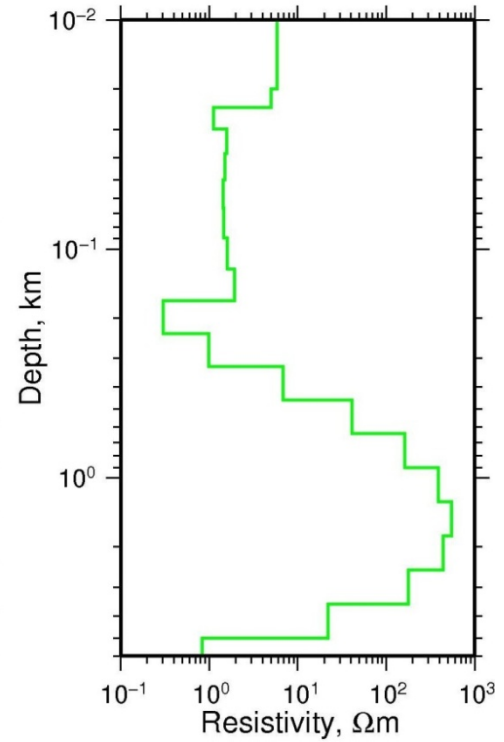
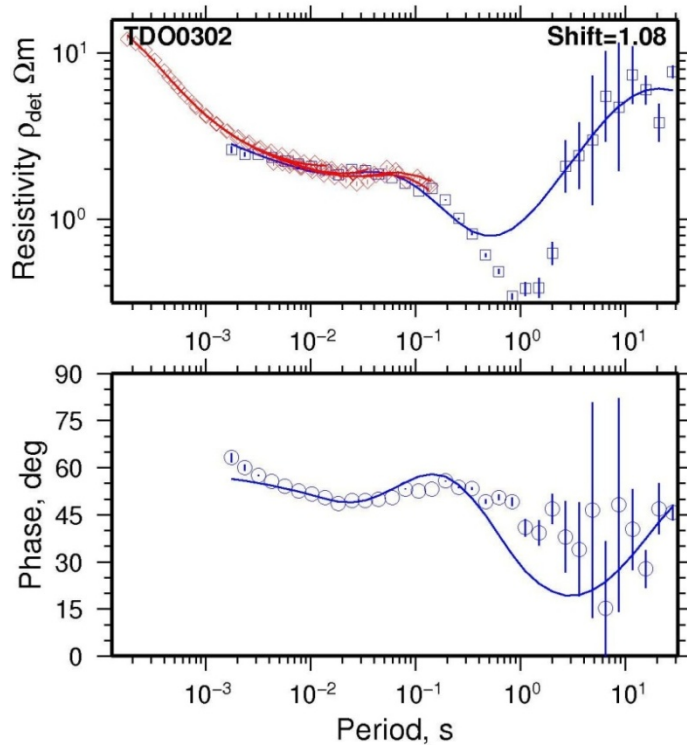
TDO0301

$\chi=2.497$



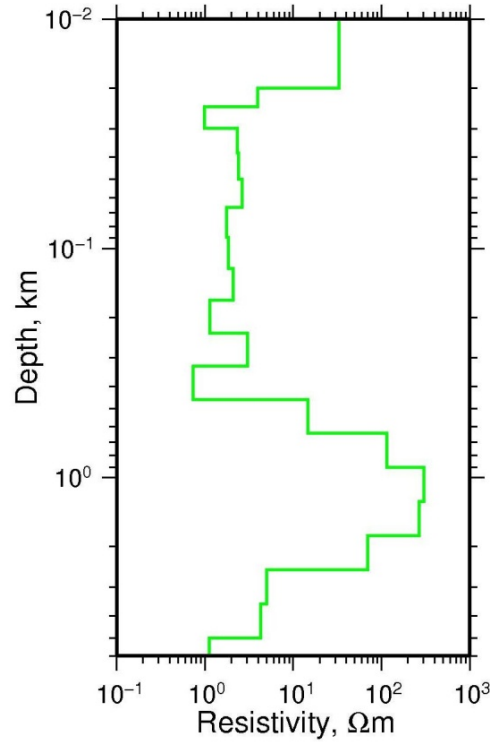
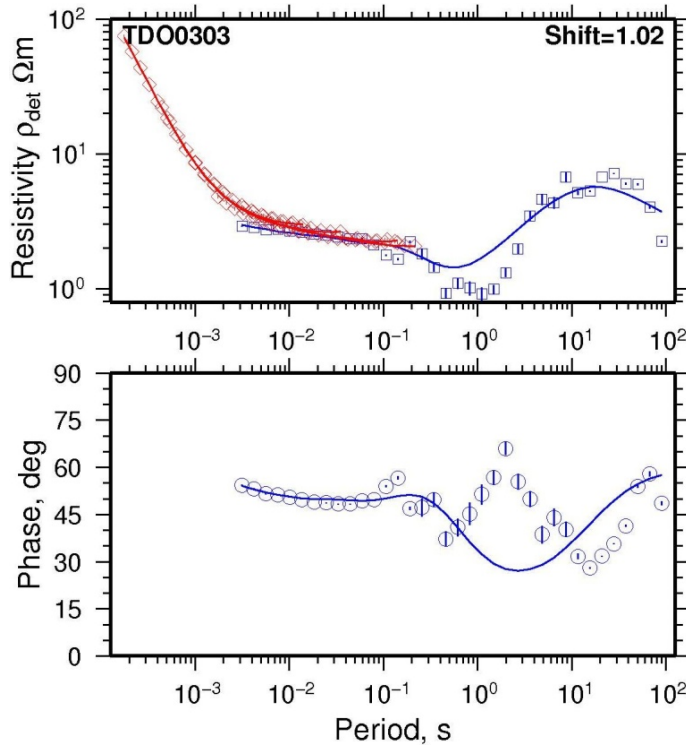
TDO0302

$\chi=3.1394$



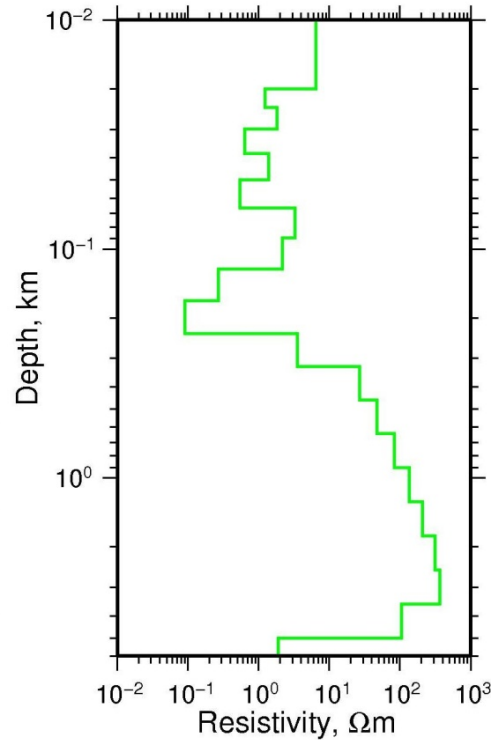
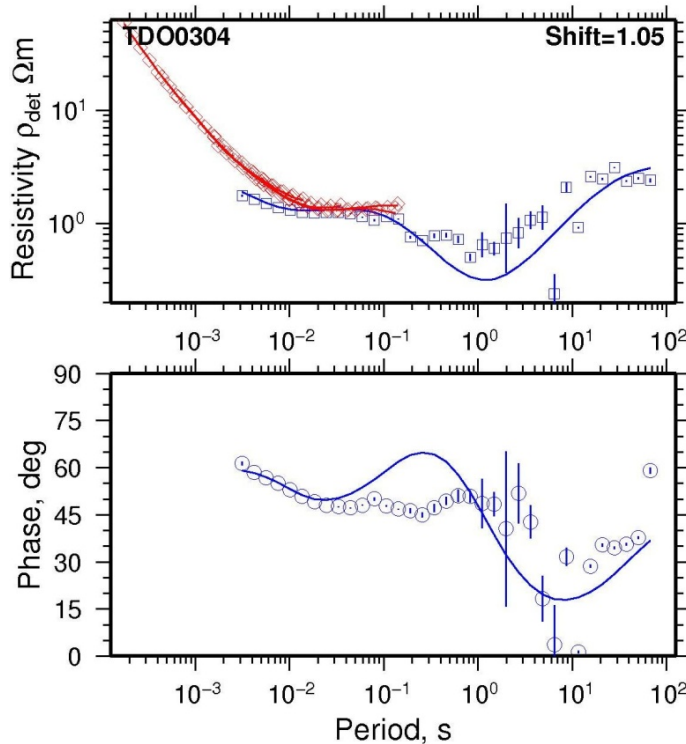
TDO0303

$\chi=3.8459$



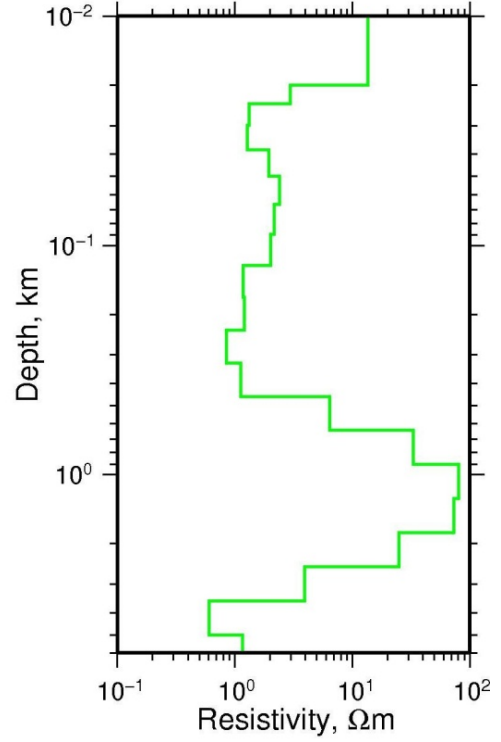
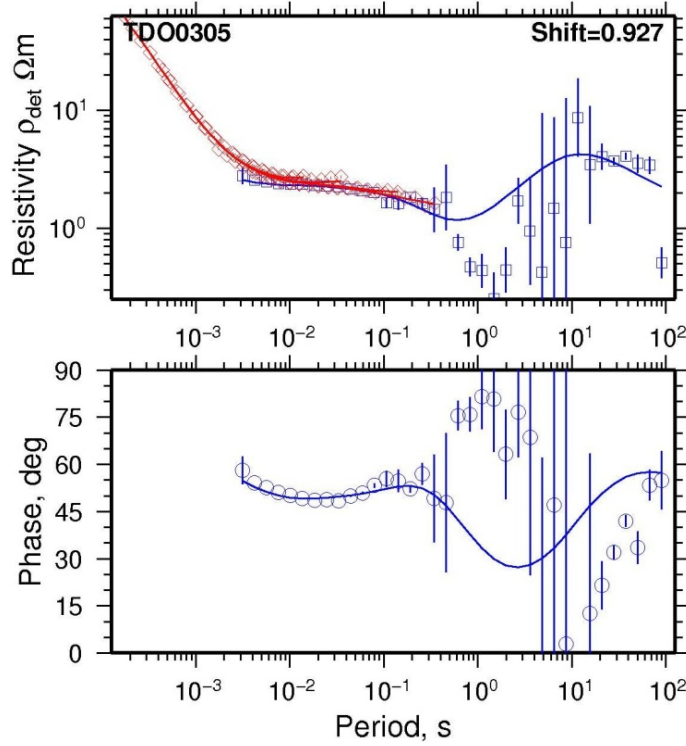
TDO0304

$\chi=9.8816$



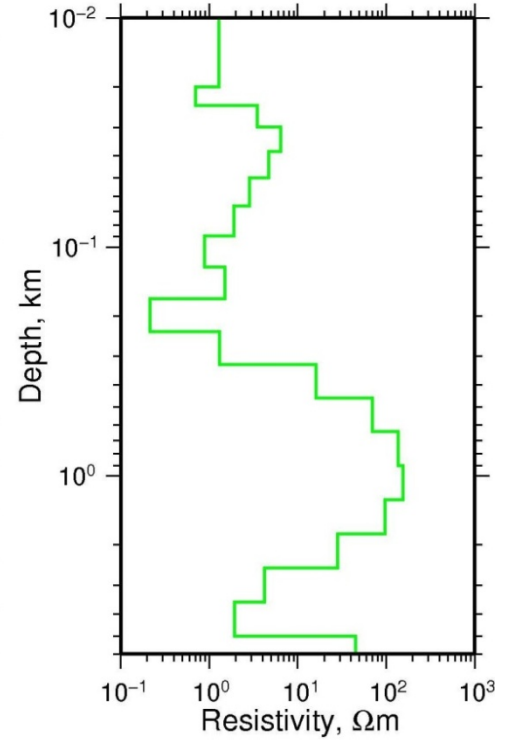
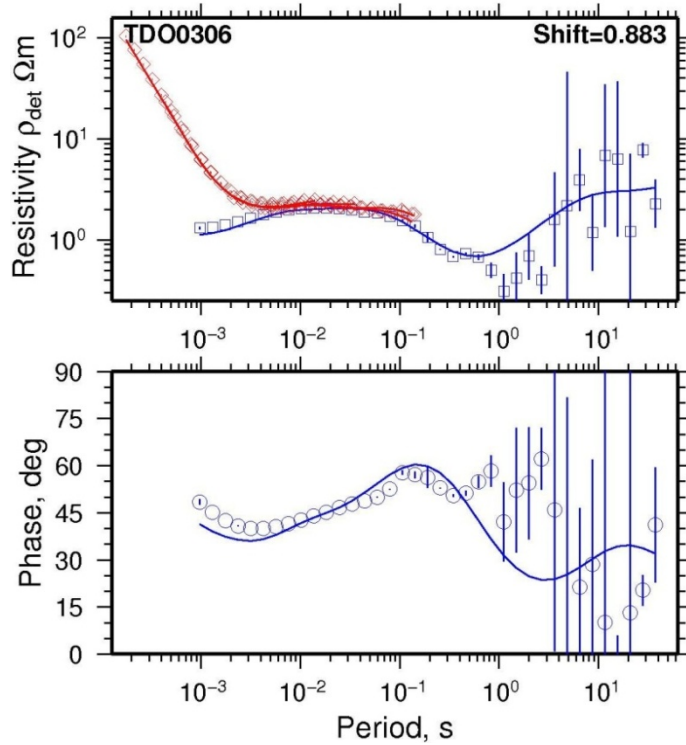
TDO0305

$\chi=6.3709$



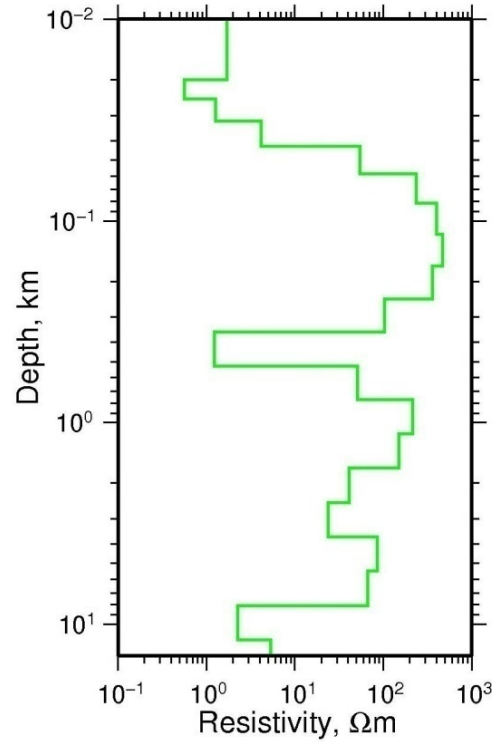
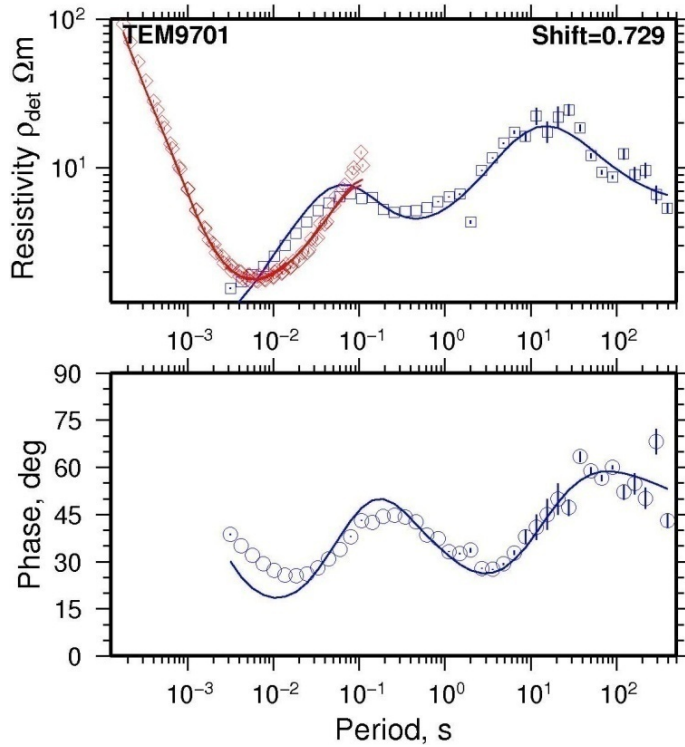
TDO0306

$\chi=5.752$



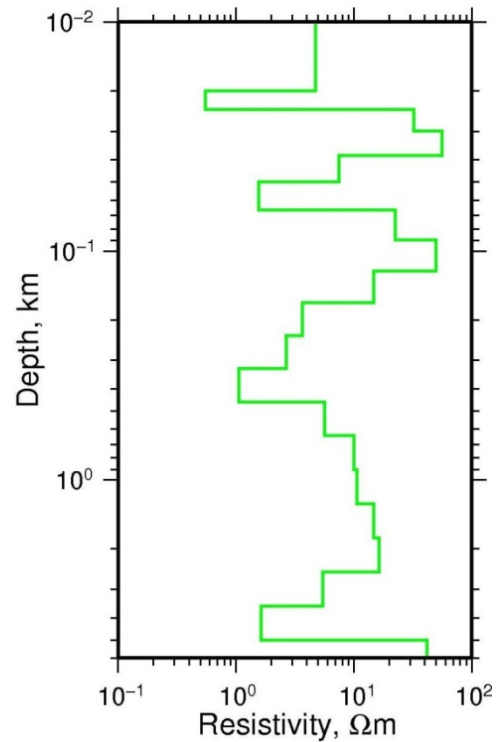
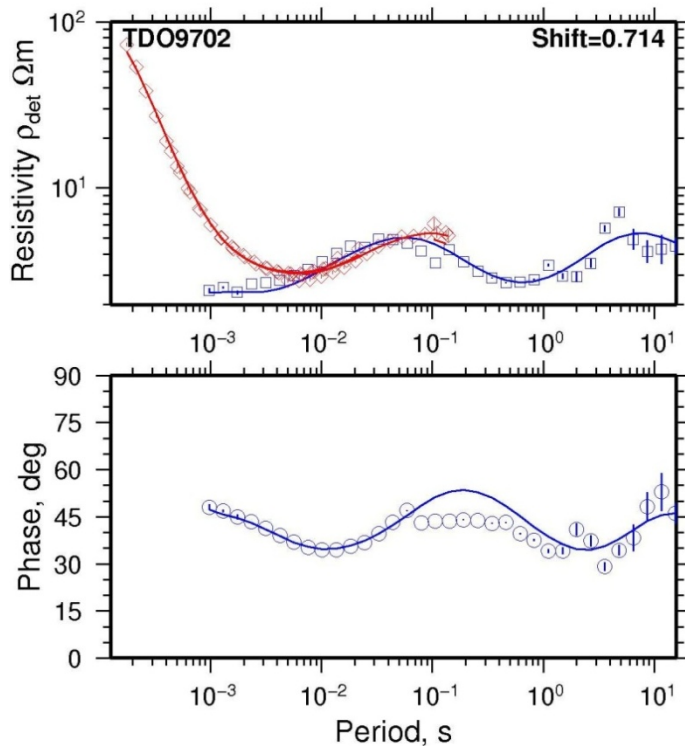
TDO9712

$\chi=5.9971$



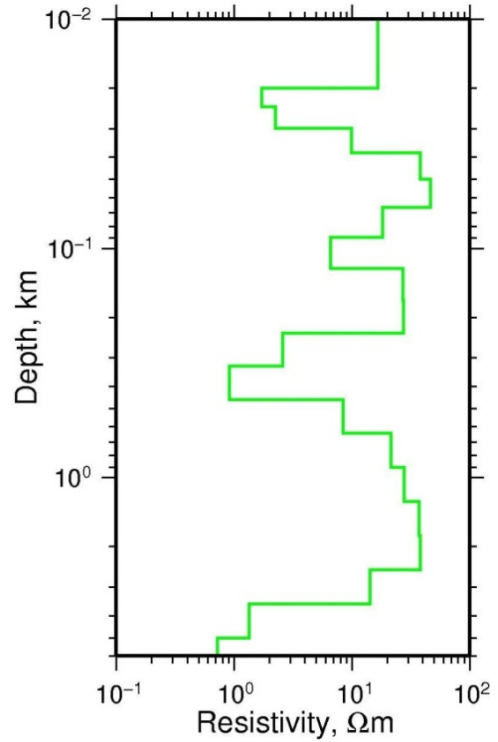
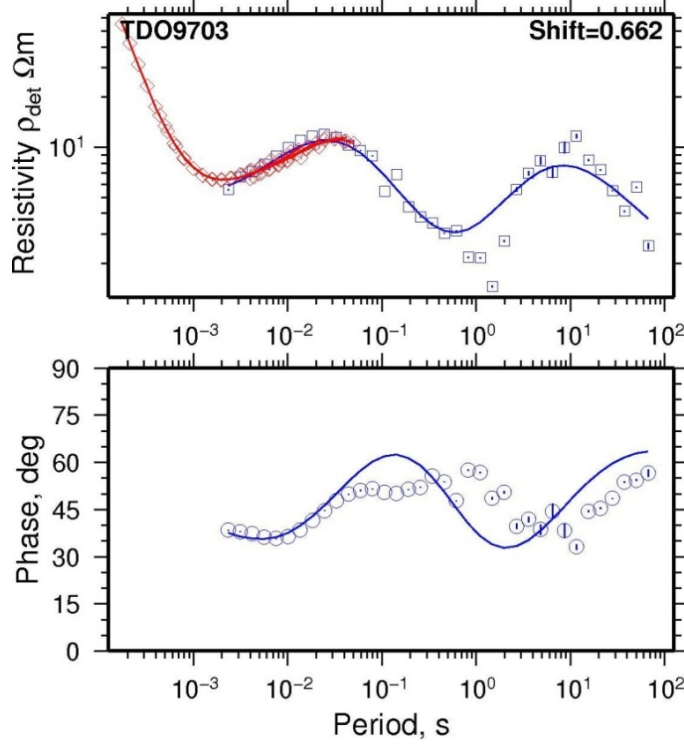
TDO9702

$\chi=3.3342$



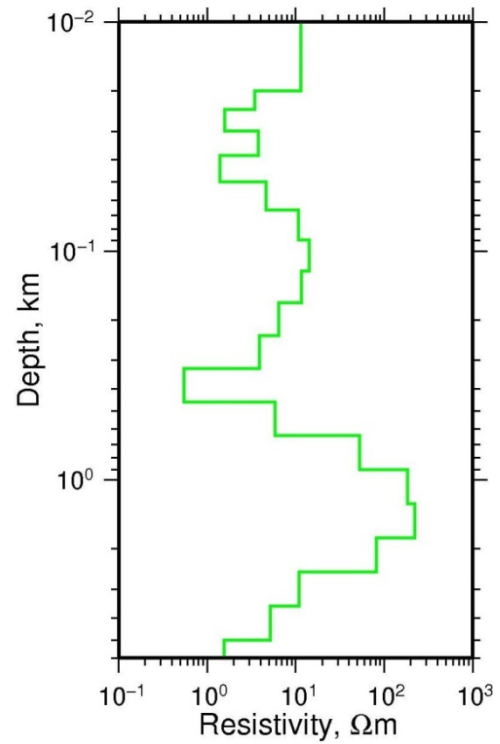
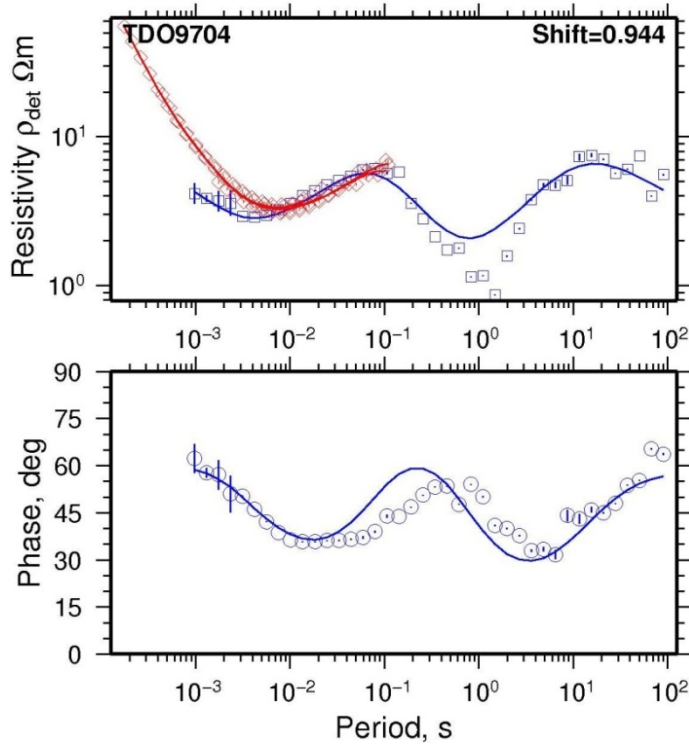
TDO9703

$\chi=3.6734$



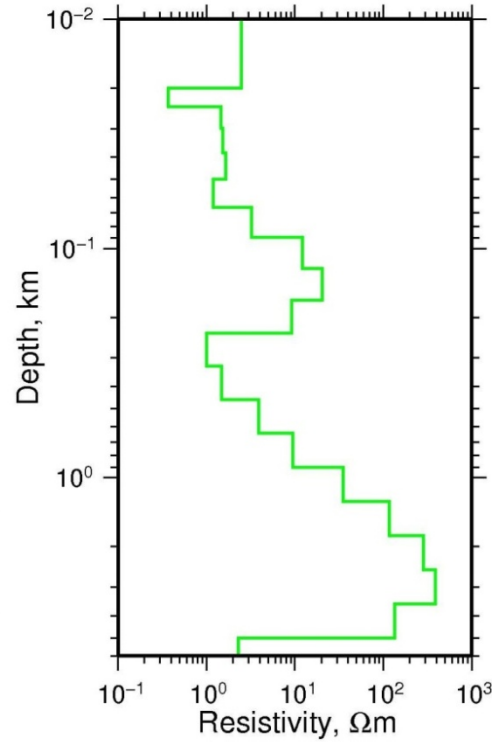
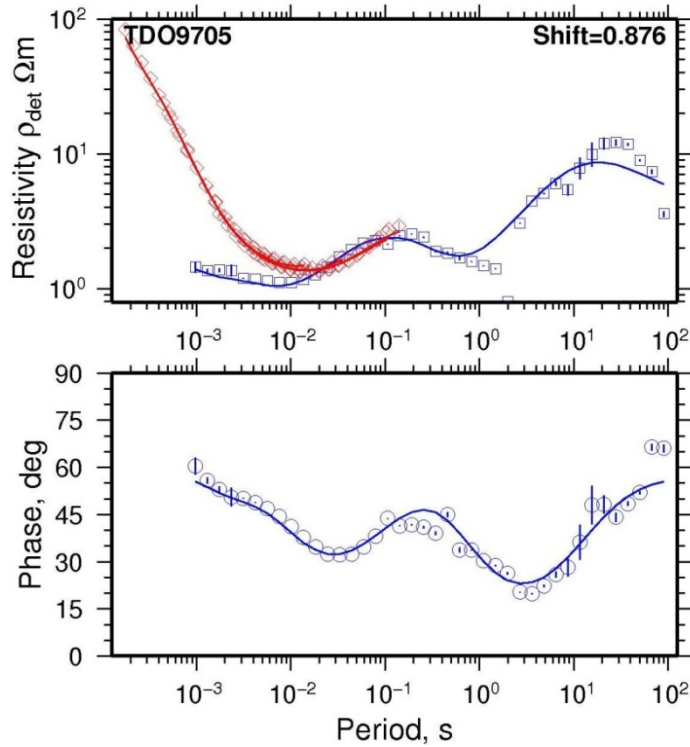
TDO9704

$\chi=3.3716$



TDO9705

$\chi=3.357$



TDO0108

$\chi=3.2904$

