Mixed valence that induces superior dielectric properties of $CdCu_3(Tb_{1/2}Ta_{1/2})_xTi_{4-x}O_{12}$ ceramics

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3. Results and discussion

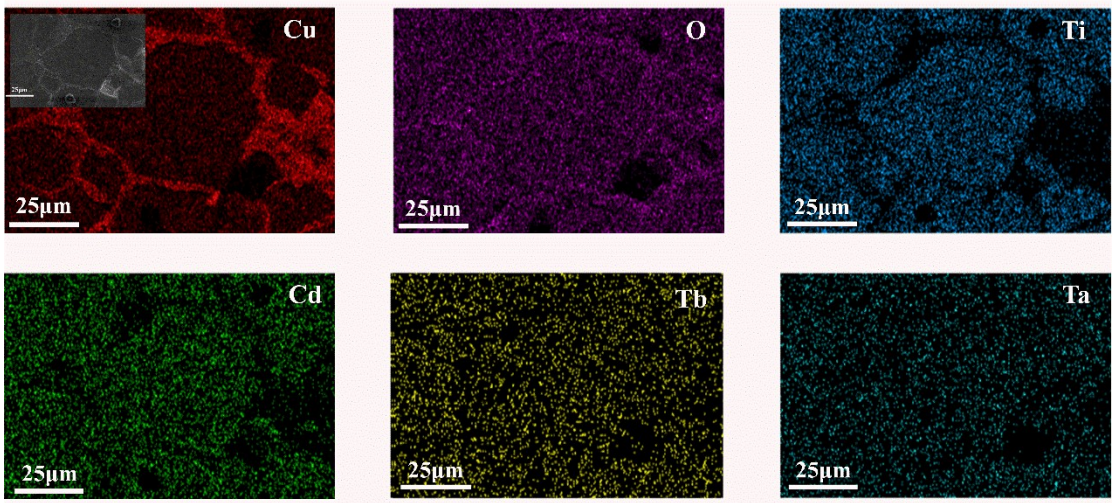

Fig. S1. Distribution of Cu, O, Ti, Cd, Tb, and Ta elements in TT10 ceramics

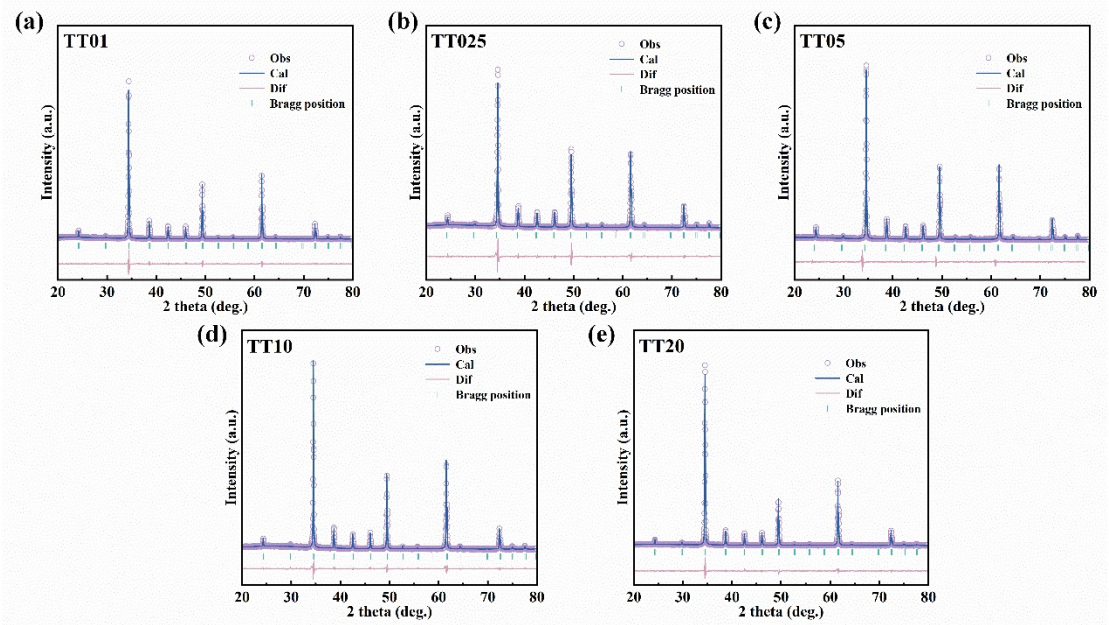

Fig. S2. Rietveld profile fit of the patterns obtained for the (a)TT01, (b)TT025, (c)TT05, (d)TT10 and (e) TT20 ceramics, respectively.

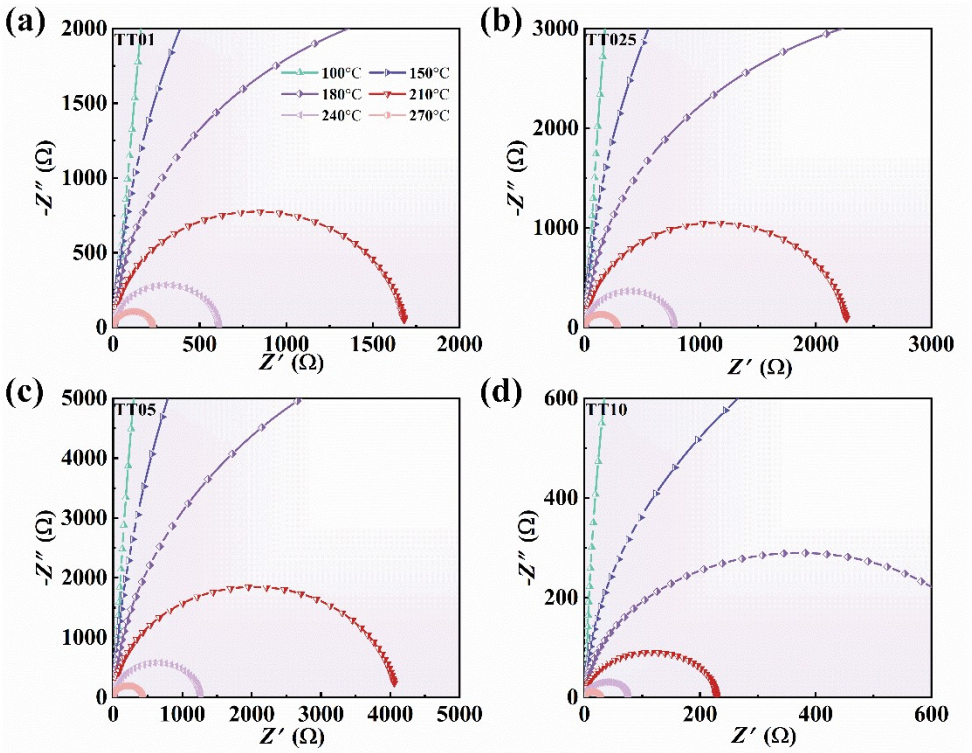

Fig. S3. Magnified view of complex impedance of CdCTO-based ceramics at different temperatures (a) TT01, (b) TT025, (c) TT05, (d) TT10.

Table S1. Structural data obtained from the Rietveld refinement

Sample	TT01	TT025	TT05	TT10	TT20
a (Å)	7.3969	7.3864	7.3947	7.4025	7.4041
R_{exp} (%)	6.56	7.11	5.98	6.39	6.16
R_p (%)	5.10	5.35	4.69	4.84	4.77
R_{wt} (%)	8.67	9.71	6.78	7.22	6.67
GOF	1.792	2.190	1.475	1.630	1.496

for the TT01, TT025, TT05, TT10 and TT20 ceramics