

Supplementary material

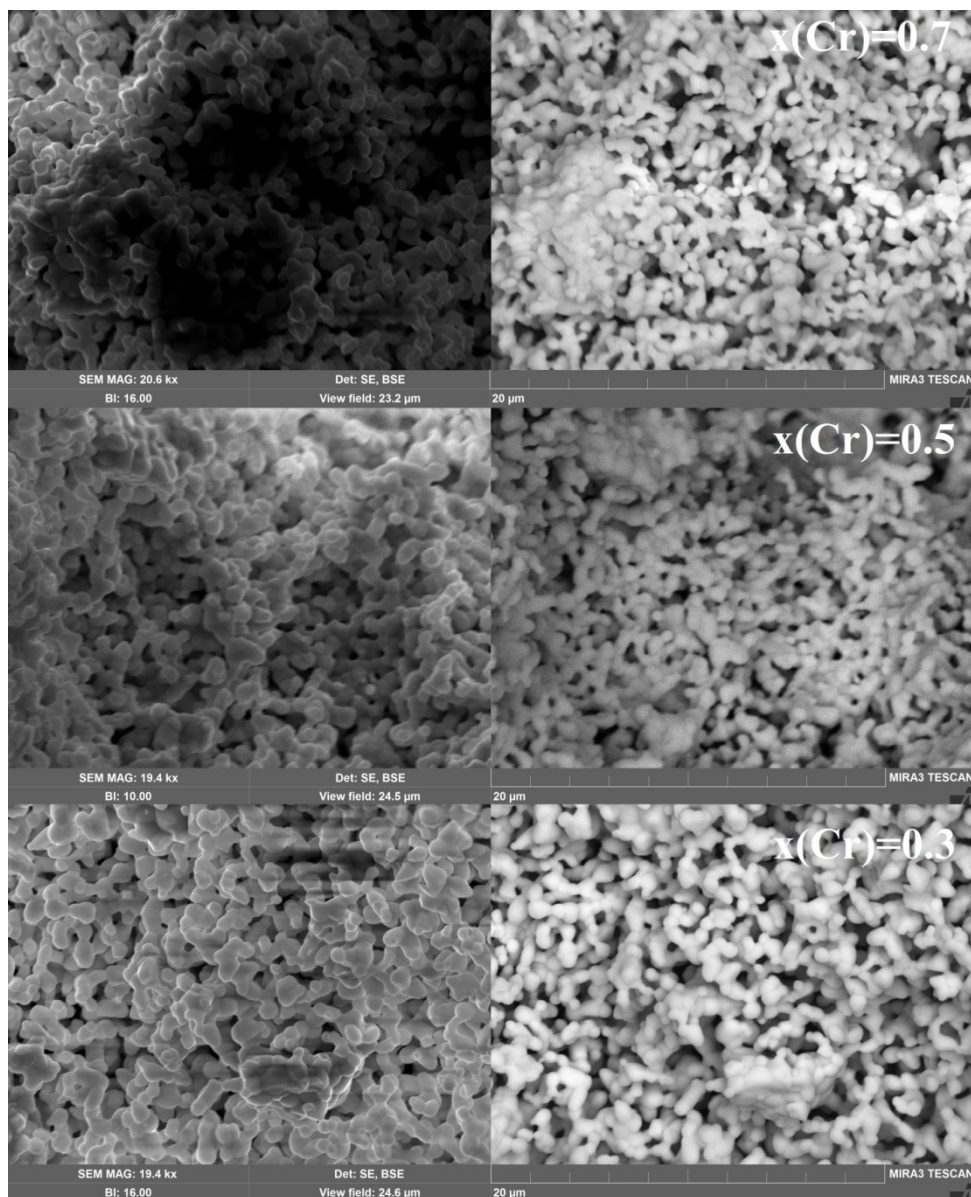
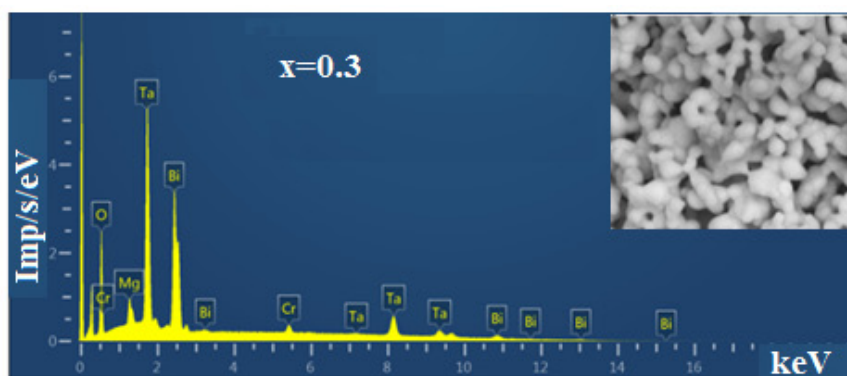
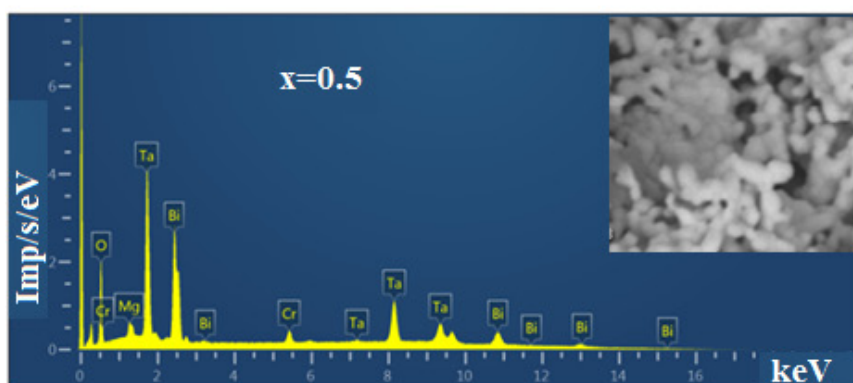


Fig. S1. SEM micrographs of Bi₂Mg_{1-x}Cr_xTa₂O_{9.5-Δ} ceramics at $x=0.7 \div 0.3$ in the mode of secondary and elastically reflected electrons.



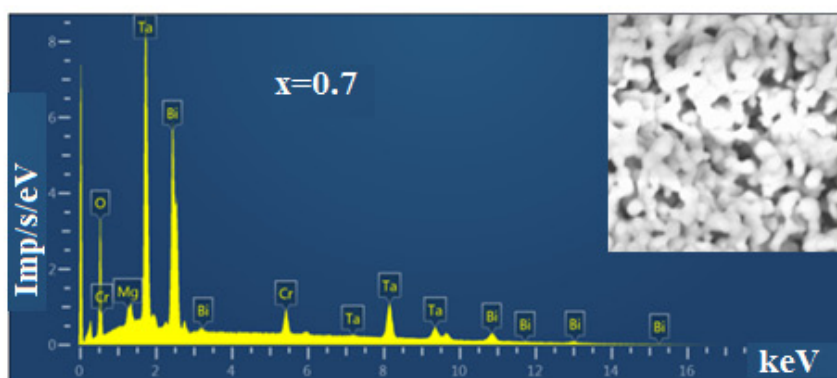
Spectrum 10

Element	Type of line	Atom. %
Ta	L Series	6.78
O	K Series	79.05
Cr	K Series	1.43
Mg	K Series	4.03
Bi	M Series	8.70
Total		100.00



Spectrum 8

Element	Type of line	Atom. %
O	K Series	71.99
Ta	L Series	15.27
Bi	M Series	8.35
Cr	K Series	2.26
Mg	K Series	2.13
Total		100.00



Spectrum 9

Element	Type of line	Atom. %
O	K Series	74.74
Ta	L Series	9.35
Cr	K Series	3.49
Bi	M Series	10.40
Mg	K Series	2.02
Total		100.00

Fig. S2. (Color online) EDS spectra and microphotographs of the $\text{Bi}_2\text{Mg}_{1-x}\text{Cr}_x\text{Ta}_2\text{O}_{9.5-\Delta}$ for $x=0.3, 0.5, 0.7$.

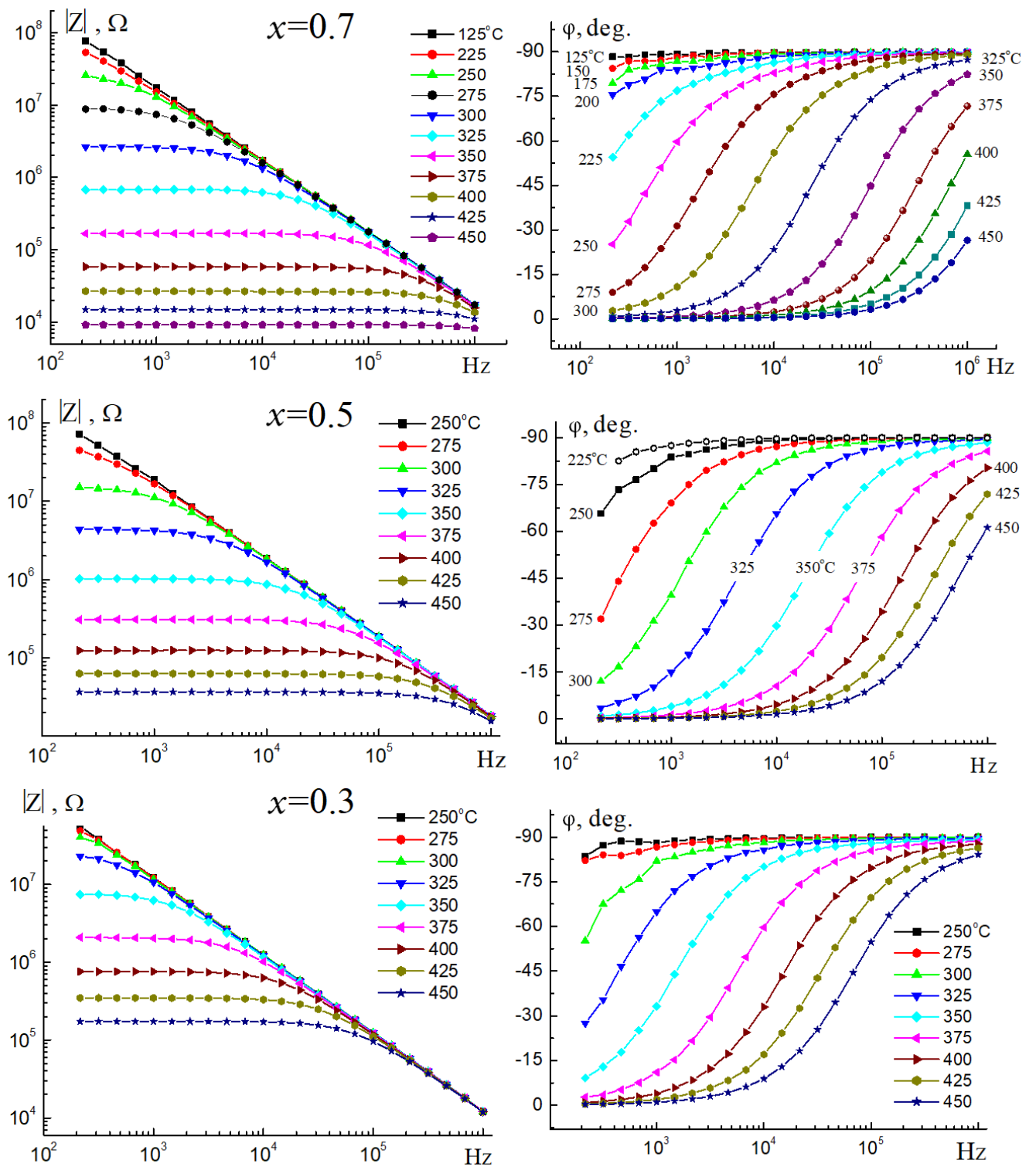


Fig. S3. Frequency dependences of the impedance modulus and phase angle for calcined samples $\text{Bi}_2\text{Mg}_{1-x}\text{Cr}_x\text{Ta}_2\text{O}_{9.5-\Delta}$.