

Supplementary information to the paper

Phase Formation and properties of YSZ-rGO composite ceramics sintered in power bed based on silicon carbide

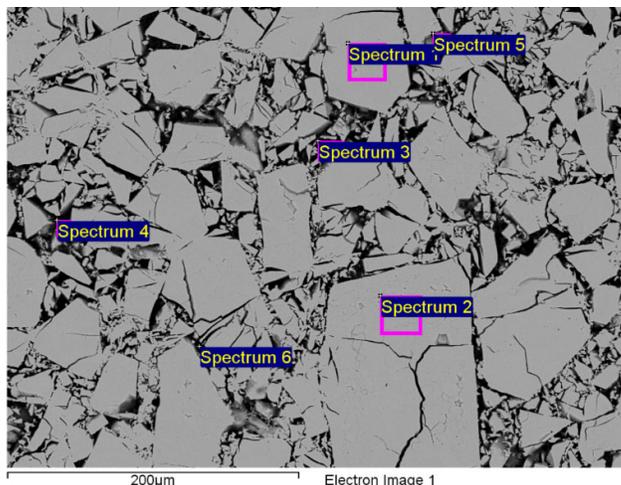


Figure S1. SEM image of the cross-section of Z0 sample with pointed areas where EDX spectra were collected.

Table S1. Distribution of elements in Z0 sample according to taken EDX spectra (in atomic %).

Spectrum	In stats.	C	O	Cl	Ni	Y	Zr
Spectrum 1	Yes		68.81			4.13	27.06
Spectrum 2	Yes		68.35			4.69	26.96
Spectrum 3	Yes	81.65	15.14				3.21
Spectrum 4	Yes	85.36	12.77	0.18			1.70
Spectrum 5	Yes	73.01	21.80		0.16	0.83	4.20
Spectrum 6	Yes		68.63	5.94			25.44

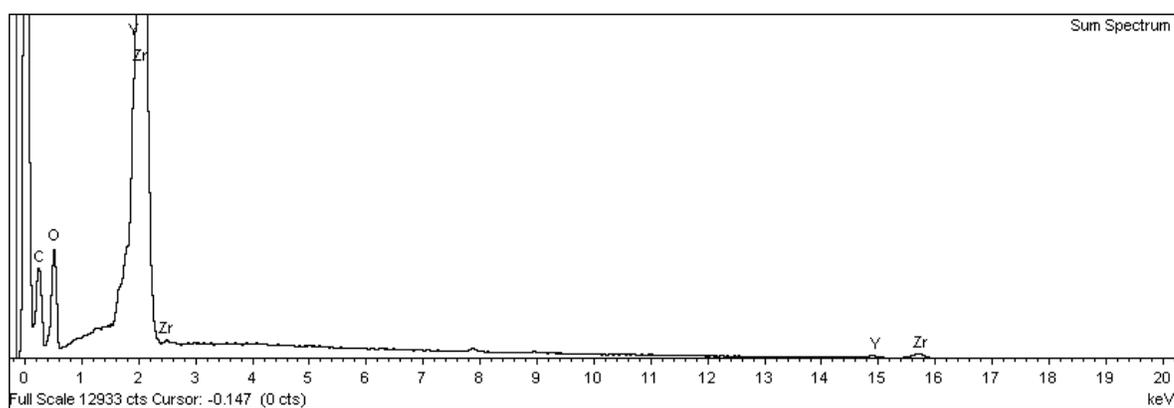


Figure S2. EDX spectrum of cross section of Z0 sample.

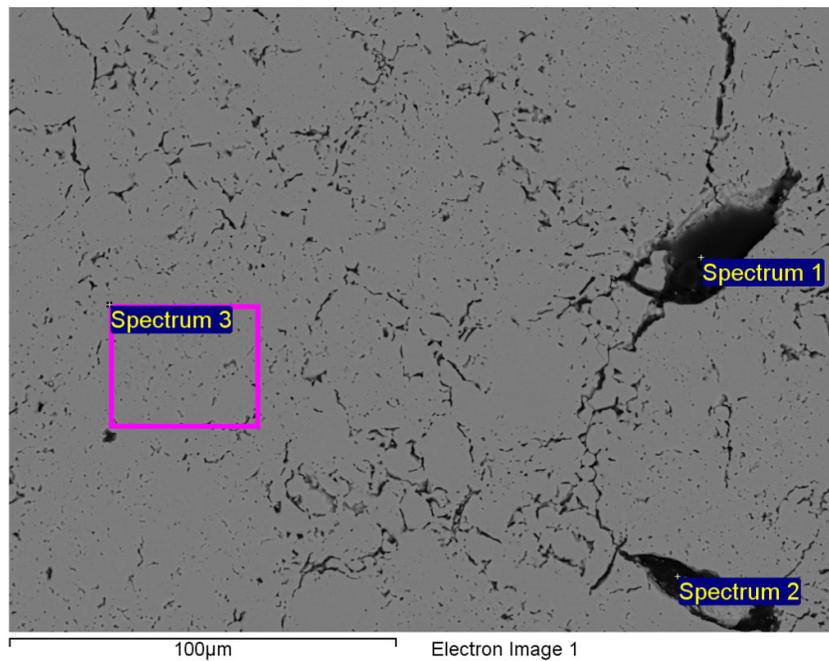


Figure S3. SEM image of the cross-section of sample Z2 with pointed areas where EDX spectra were collected.

Table S2. Distribution of elements in sample Z2 according to taken EDX spectra (in atomic %).

Spectrum	In stats.	C	O	Cl	Ni	Y	Zr
Spectrum 1	Yes	79.83	18.57	0.10			1.50
Spectrum 2	Yes	66.81	30.22		0.81		2.15
Spectrum 3	Yes		67.69			5.18	27.13

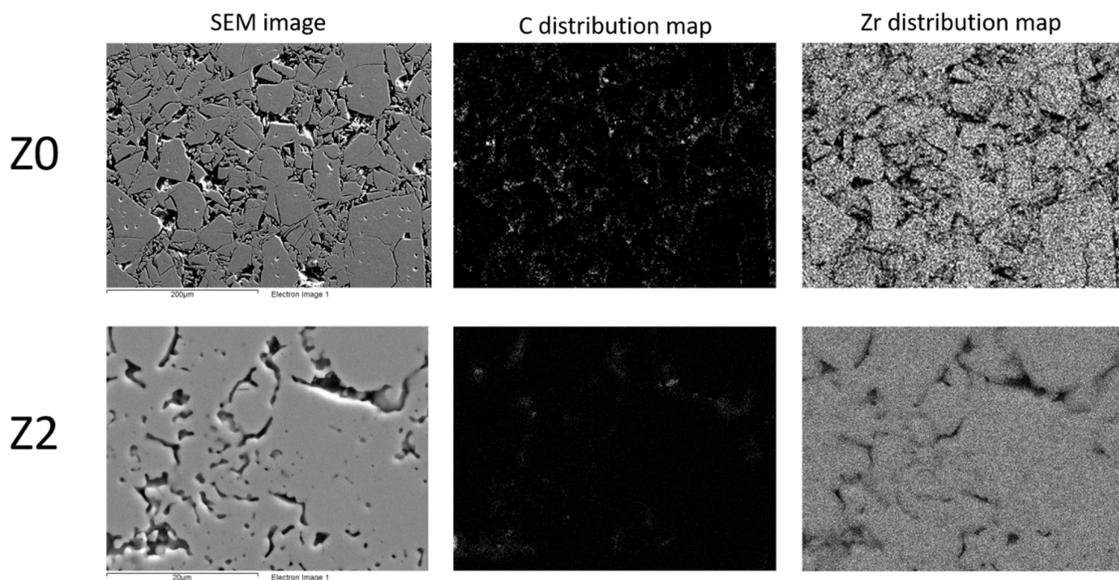


Figure S4. SEM image of Z0 ceramics bulk and carbon, and zirconium elemental distribution maps.

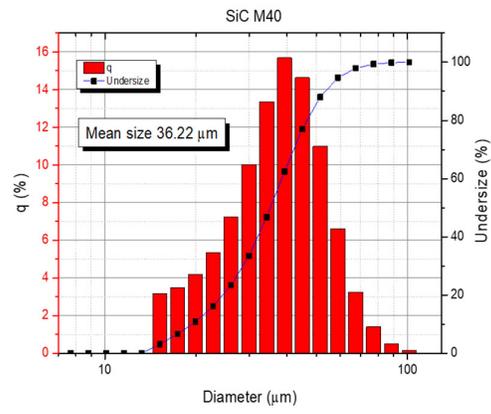


Figure S5. Particle size distribution of used in powder bed SiC measured by dynamic light scattering method.