

Supplementary material

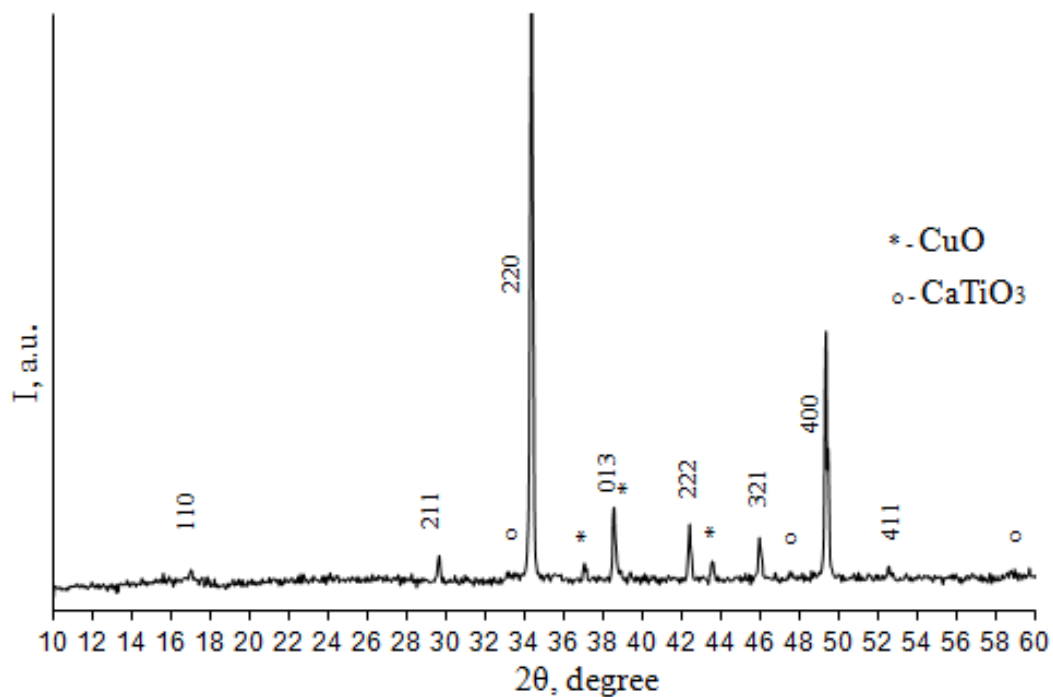
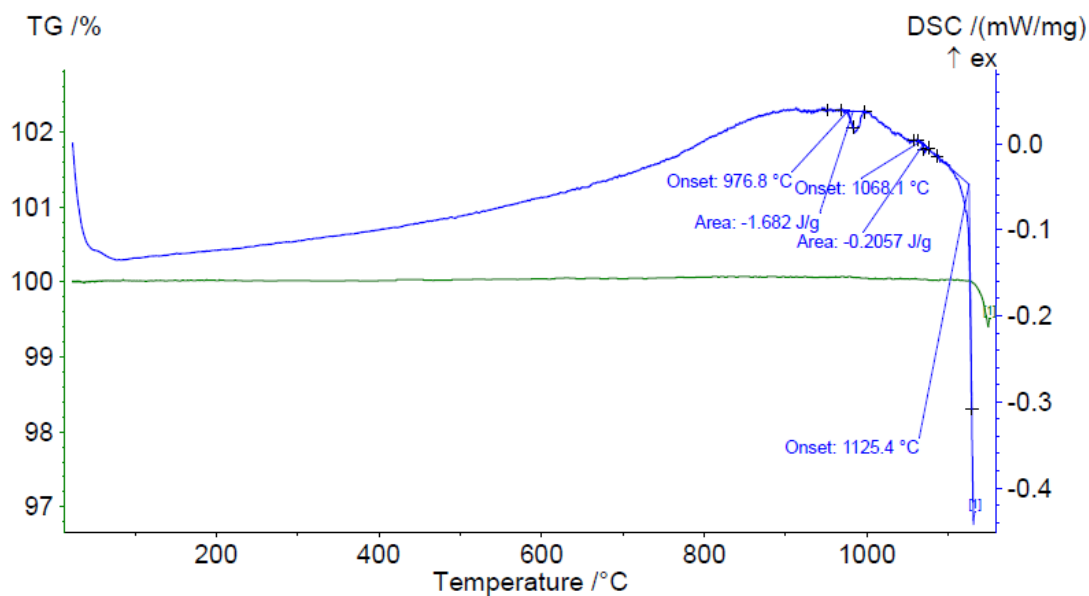
Рис. S1. Дифрактограмма композита $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -CuO.Fig. S1. X-ray diffraction pattern of the composite $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -CuO.

Рис. S2. Термограмма титаната кальция-меди (кривые TG [1] и DSC [2]).

Fig. S2. Thermogram of the sample $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -CuO (TG [1] and DSC [2] curves).

Табл. 51. Параметры эквивалентных схем, представленных на Рис. 4.**Table 51.** Parameters of the equivalent circuits shown in Fig. 4.

T (°C)	$R1$	$R2$ (Ω)	$T_{CPE1} \times 10^9$	P_{CPE1}	$R3$ (k Ω)	$T_{CPE2} \times 10^9$	P_{CPE2}	χ^2 ($\times 10^{-4}$)
1	2	3	4	5	6	7	8	9
0	200 M Ω	327	0.287	0.952	-	-	-	190
20	120 M Ω	224	0.345	0.941	-	-	-	9.34
50	26.6 M Ω	118	0.471	0.915	-	-	-	12.8
75	∞	74	0.577	0.905	-	-	-	131
100	18.8 M Ω	25	0.752	0.888	-	-	-	-
125		0	1.2	0.866	87.4	2.10	1	8.47
150	8.29 M Ω	0	1.67	0.877	194.8	3.35	0.856	18.1
175	3.98 M Ω	0	2.6	0.857	116.8	2.87	0.862	9.13
200	1.96 M Ω	0	3.42	0.839	45.07	3.25	0.864	17.6
225	742 k Ω	0	4.14	0.813	9.814	1.26	0.965	7.97
250	240 k Ω	0	2.43	0.899	14.47	2.95	0.851	3.26
275	70 k Ω	0	1.77	0.972	14.02	2.95	0.835	4.40
300	20.3 k Ω	0	1.77	0.956	6.158	4.97	0.808	2.26
325	9.17 k Ω	0	1.59	0.969	3.097	5.00	0.809	5.14
350	3.92 k Ω	0	1.47	0.99	1.959	4.36	0.817	8.52
375	1.58 k Ω	0	1.39	1	1.180	3.16	0.839	7.74
400	694 Ω	0	1.186	1	0.65	7.8	0.787	15.3
425	228 Ω	0	1.104	1	0.383	4.55	0.816	1.66
450	-	-	-	-	0.376	1.71	0.869	5.49