A New Approach to Detection in Laser-induced Breakdown Spectroscopy

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Supporting Information

Table S-1. Technical features of the employed detectors

Parameter	ICCD	CCD
Chip size	1024 × 1024 pixel	1024 × 1024 pixel
Pixel size	13 µm × 13 µm	13 µm ×13 µm
Intensifier diameter	18 mm	-
Peak quantum efficiency	0.27	0.65
Gain	28 counts/photons (125)	-
Readout noise	7.28 photons/pix	8.5 photons/pix
Dark-charge signal	0.2 photons/s/pix	0.002 photons/s/pix
EBI	0.000123 photons/pix/s	-

Table S-2 Concentrations (in mass %) of elements in steel samples

Sample	Ni	Mo	Cu	Cr	V	Mn	Si
1	0.031	0.47	0.088	0.055	0.52	0.85	0.41
2	0.81	0.17	0.21	0.77	0.15	0.16	0.13
3	0.12	0.073	0.18	0.33	0.26	1.84	0.084
4	0.4	0.31	0.34	0.48	0.11	0.31	0.87
5	0.22	0.002	0.013	0.15	0.28	1.28	1.71
6	1.69	1.03	0.32	2.12	0.02	0.53	0.38
7	0.61	0.82	0.43	3	0.23	0.13	0.69
8	4.58	0.14	0.73	0.09	0.063	0.64	0.24
9	3.14	0.77	0.23	1.22	0.028	0.48	1.07

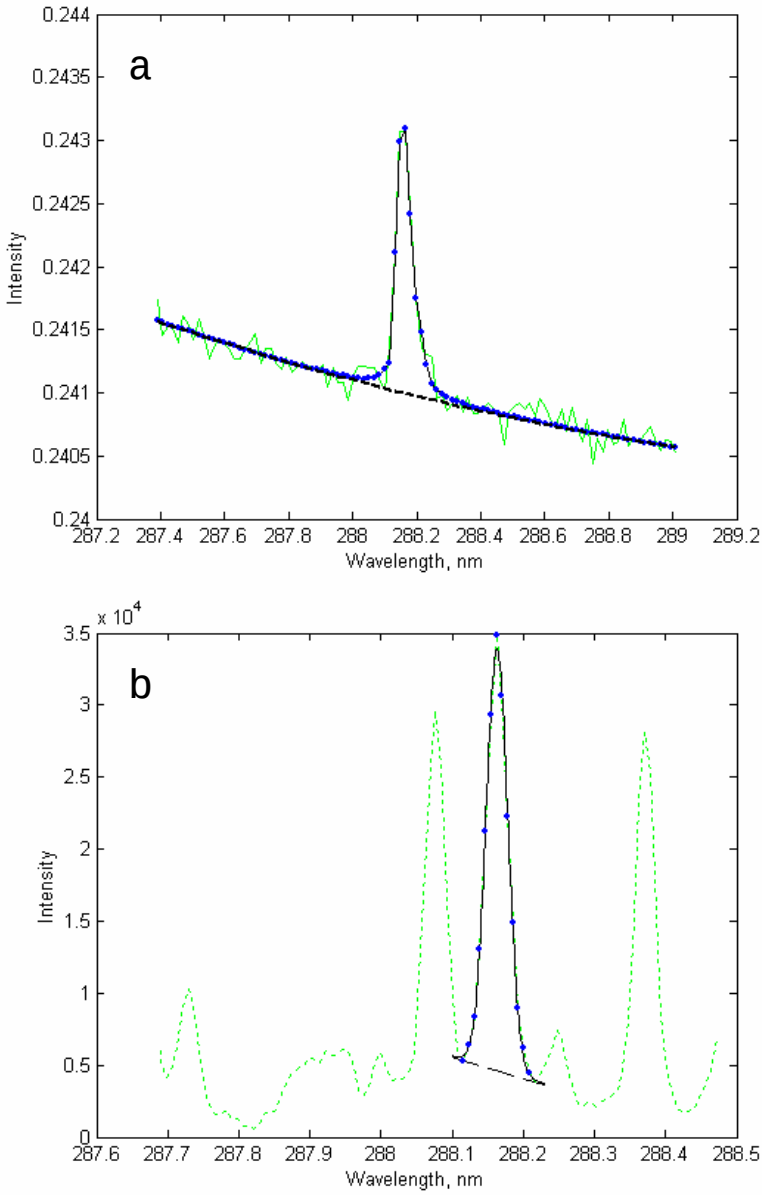

Figure S-1
(a) Fragment of theoretical plasma spectrum with superimposed Poisson noise. Si(I) 288.16 nm line is approximated by the Voigt function; the baseline is approximated by the second polynomial. (b) Fragment of experimental plasma spectrum. Si(I) 288.16 nm line is approximated by the Gaussian function; the baseline is approximated by the linear function.