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DNAzyme-functionalized R-phycoerythrin as a cost-effective and environment-friendly fluorescent biosensor for aqueous Pb^{2+}detection

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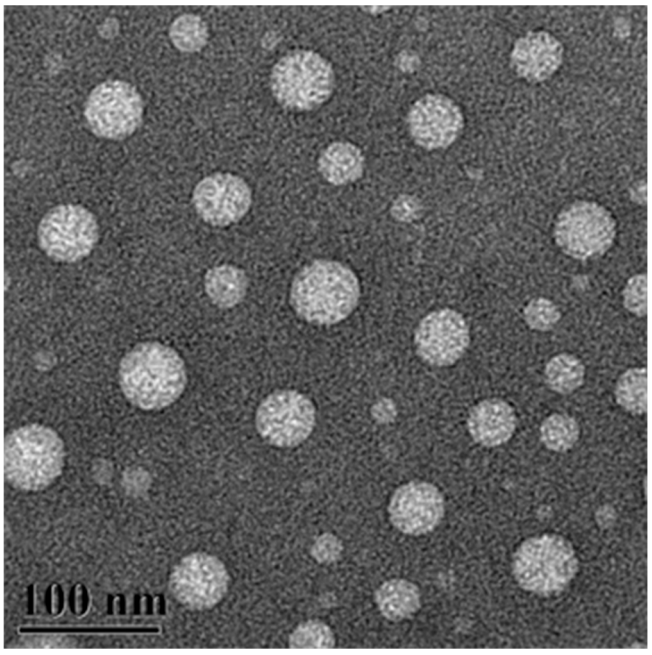

Figure S1. TEM image (negative staining) of R-PE

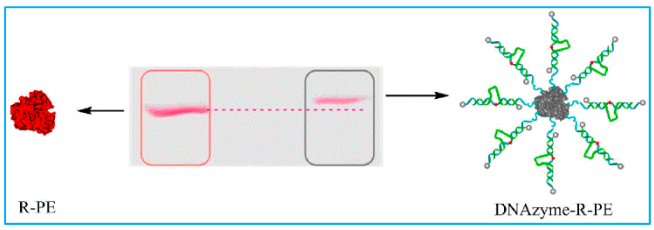

Figure 2. Native-PAGE (8%) analysis of R-PE and DNAzyme-R-PE.

Table 1. Comparison of the performance of biosensors based on different sensing principles for Pb^{2+} detection.

Detection Technique	Recognition Element	Linear Range	LOD	Reference
Colorimetry	GR-5 DNAzyme	1–500 nM	0.7 nM	[1]
Colorimetry	GR-5 DNAzyme	0.1–1000 nM	0.3 nM	[2]
Colorimetry	8-17 DNAzyme	5–100 nM	20 nM	[3]
Electrochemistry	8-17 DNAzyme	0.5–10 μM	0.3 μM	[4]
Electrochemistry	GR-5 DNAzyme	1 nM–10 mM	1 nM	[5]
Electrochemistry	GR-5 DNAzyme	0.05–200 nM	0.034 nM	[6]
Fluorescence	8-17 DNAzyme	10 nM–2.5 mM	1.7 nM	[7]
Fluorescence	GR-5 DNAzyme	1–50 nM	0.2 nM	[8]
Fluorescence	8-17 DNAzyme	5 nM–1 μM	1 nM	[9]
Fluorescence	GR-5 DNAzyme	0.2–2 nM	0.1 nM	[10]
Fluorescence	GR-5 DNAzyme	0.5–75 nM	0.16 nM	This work

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