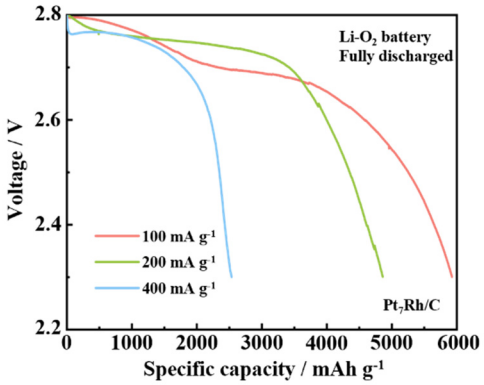

Fig. S1. Discharge/charge curves of LOB with Pt_7Rh/C at different current densities of 100, 200 and 400 mA g^{-1}.

Table S1. Values of specific capacity of LOBs at different current density of 100, 200 and 400 mA g^{-1}.

Candidates	Pt/C	Rh/C	Pt_3Rh/C	Pt_5Rh/C	Pt_7Rh/C
Current density / mA g^{-1}	Specific capacity / mAh g^{-1}				
100	4888	5775	5954	7272	5933
200	4283	4728	4875	5511	4866
400	3274	3656	4382	3539	2537

Table S2. The capacity retention rates under high (400 mA g^{-1}) / low (100 mA g^{-1}) current densities.

Candidates	Pt/C	Rh/C	Pt_3Rh/C	Pt_5Rh/C	Pt_7Rh/C
Capacity retention rates / %	67.0	63.3	73.6	48.7	42.8

Table S3. Comparison of electrochemical properties of LOB of some similar materials and Pt_3Rh/C catalyst.

Materials	Current Density (mA g^{-1})	Specific Capacity (mAh g^{-1})
RuO_2/MnO_2	100	2895
MMONFs	50	3111
Ru/Ni	200	3720
SNC	200	4704
NiO/AB	100	1250
N,Co-TiO_2/CFs	100	5300