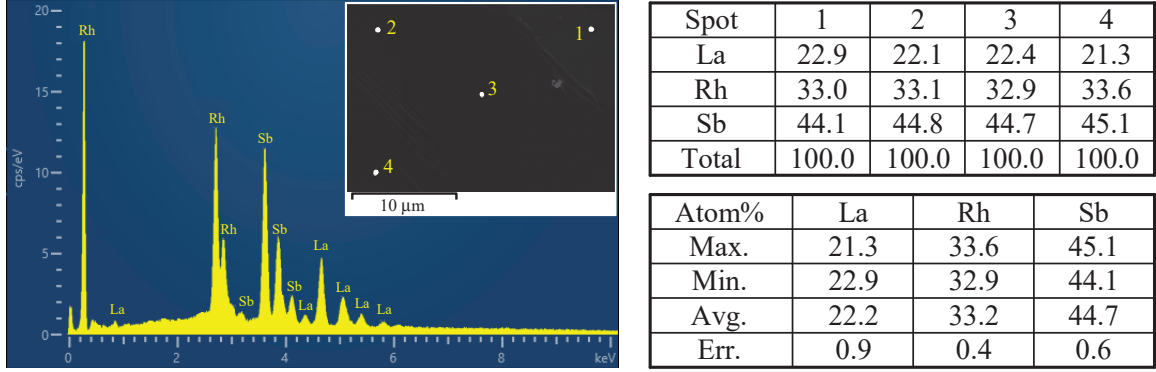


**Supplementary information:**

**La<sub>2</sub>Rh<sub>3+δ</sub>Sb<sub>4</sub>: A new ternary superconducting rhodium-antimonide**

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**Figure S1.** Energy dispersive X-ray spectrum (EDS) results of a selected La<sub>2</sub>Rh<sub>3+δ</sub>Sb<sub>4</sub> single crystal. The tables display the chemical compositions.

**Table S1.** Anisotropic displacement parameters ( $\text{\AA}^2 \times 10^3$ ) for La<sub>2</sub>Rh<sub>3+δ</sub>Sb<sub>4</sub>. The Anisotropic displacement factor exponent takes the form:  $-2\pi^2[h^2a^*2U_{11} + 2hka^*b^*U_{12} + \dots]$ .

Atoms	$U_{11}$	$U_{22}$	$U_{33}$	$U_{23}$	$U_{13}$	$U_{12}$
La1	5.1(3)	7.4(4)	4.6(4)	0	-1.3(2)	0
La2	10.0(3)	8.6(4)	5.4(4)	0	1.4(3)	0
Sb1	3.7(4)	7.5(5)	4.8(4)	0	0.0(3)	0
Sb2	3.4(3)	14.3(5)	2.4(4)	0	0.2(3)	0
Sb3	12.7(4)	6.2(4)	5.7(4)	0	4.8(3)	0
Sb4	6.6(4)	7.0(5)	13.7(4)	0	-5.1(3)	0
Rh1	2.9(4)	5.4(5)	1.6(4)	0	-0.3(3)	0
Rh2	3.4(4)	5.8(5)	2.6(4)	0	-0.2(3)	0
Rh3	6.3(4)	7.2(5)	3.0(5)	0	1.2(3)	0
Rh4	12(4)	32(5)	5(4)	0	3(3)	0