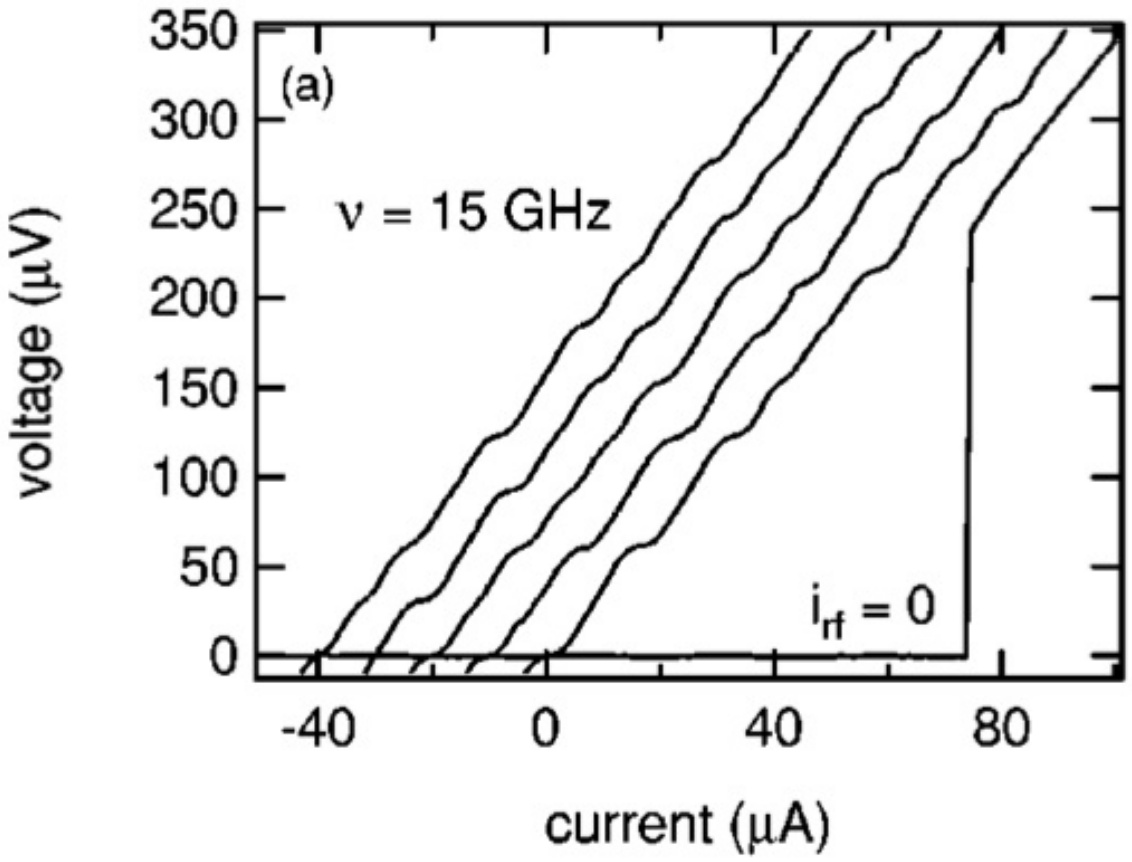
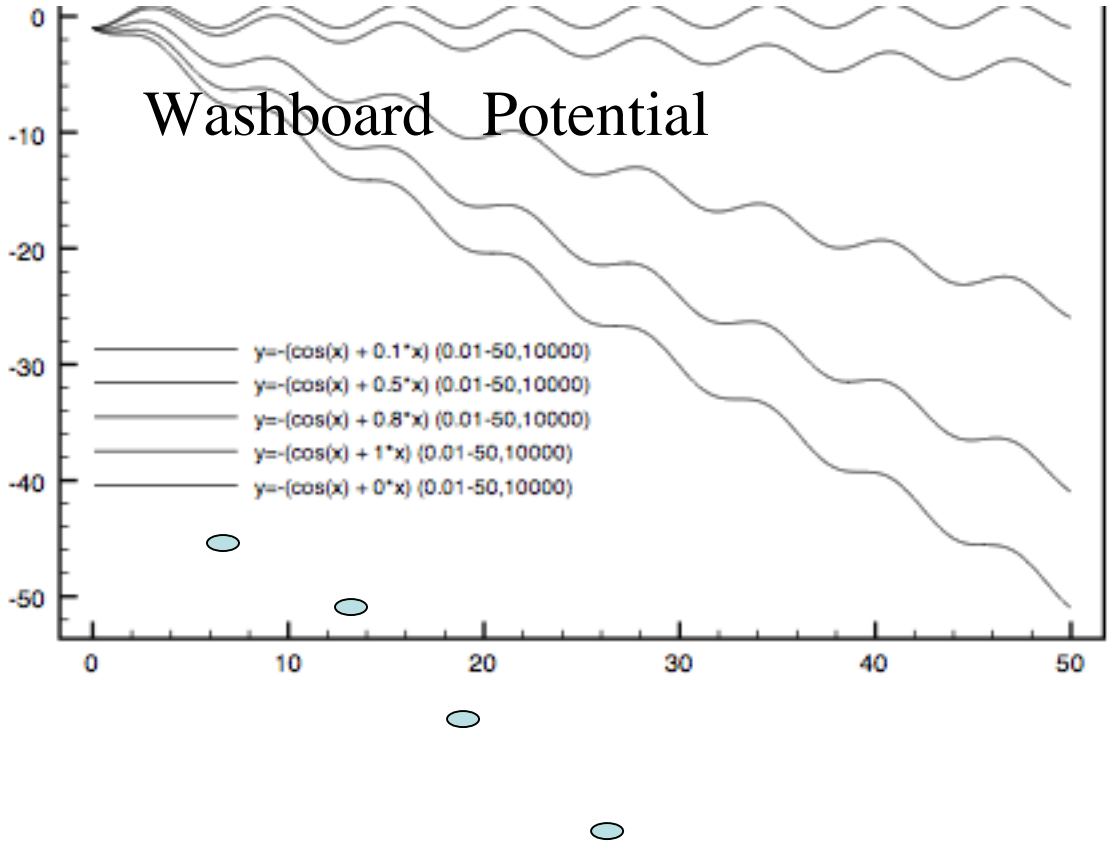
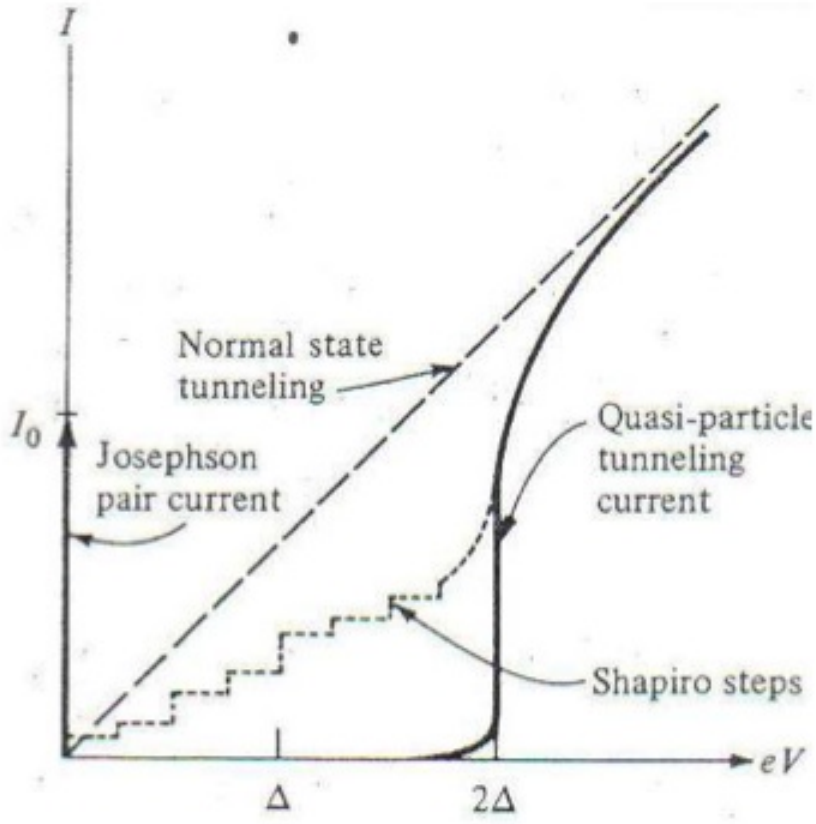
Shapiro steps in **Nb/InAs/Nb Josephson Junctions**

PHYSICAL REVIEW B, VOLUME 63, 144512




Washboard Potential
y=-(cos(x) + 0.1*x) (0.01-50,10000)
y=-(cos(x) + 0.5*x) (0.01-50,10000)
y=-(cos(x) + 0.8*x) (0.01-50,10000)
y=-(cos(x) + 1*x) (0.01-50,10000)
y=-(cos(x) + 0*x) (0.01-50,10000)
0
-10
-20
-30
-40
-50
0
10
20
30
40
50

Expected I-V characteristics in a Josephson Junction



Josephson effect in a magnetic field

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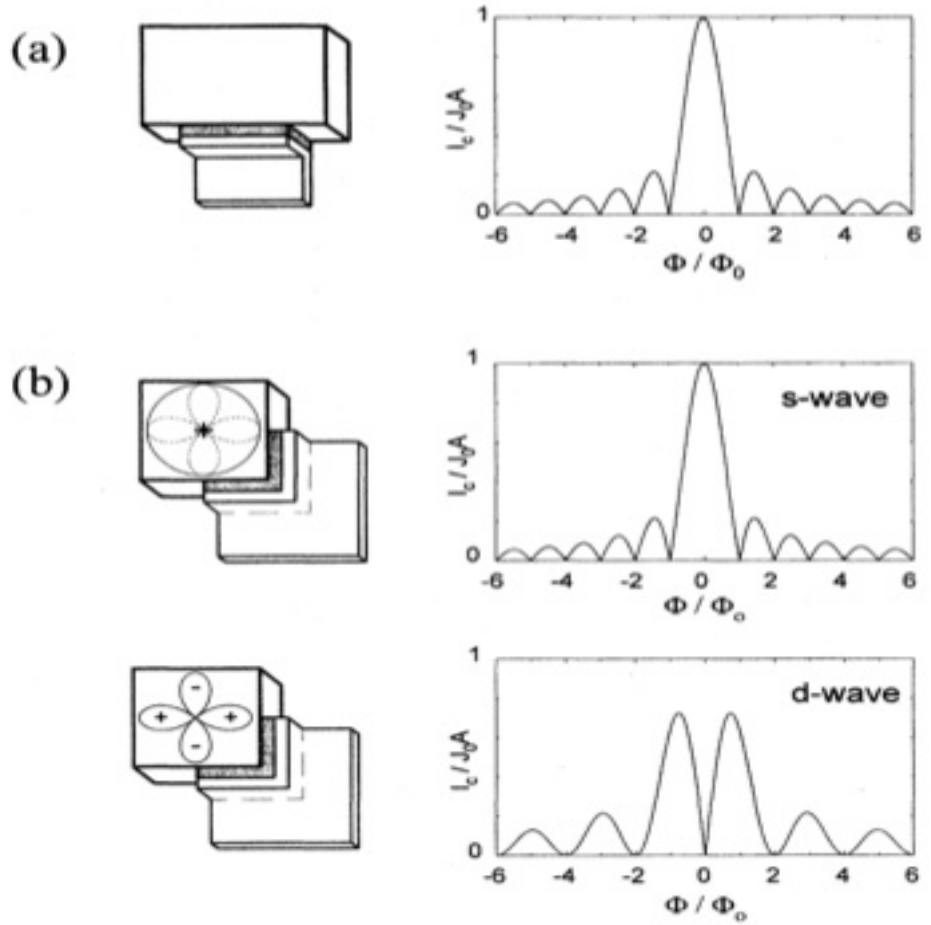

FIG. 10. Scheme for determining the symmetry from single junctions: (a) Fraunhofer diffraction pattern for the critical current modulation of a single Josephson junction with applied magnetic field, analogous to single-slit optical interference. (b) Calculated modulation for a junction straddling the corner for *s*-wave and *d*-wave symmetry.

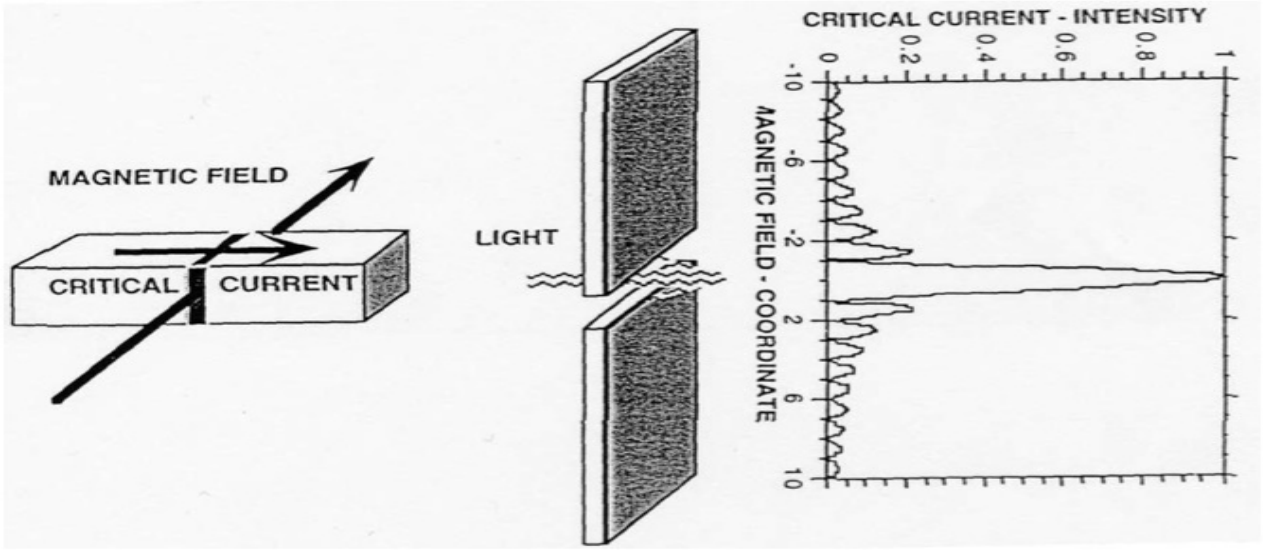

Figure 5. Analogy of a Josephson junction in a magnetic field and light diffracted in a single slit.

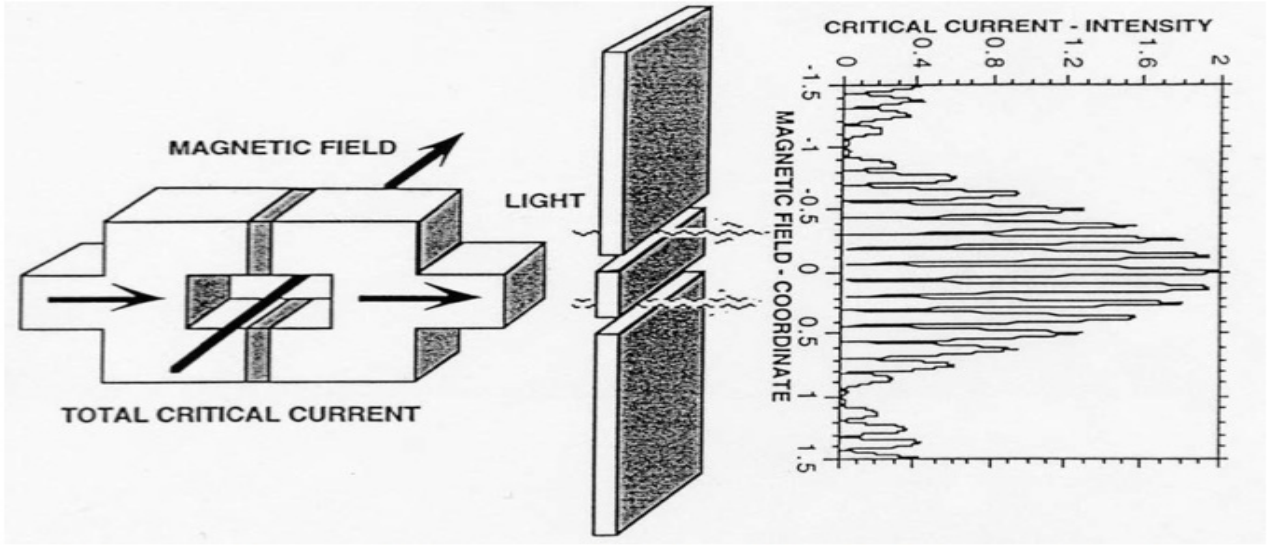

Figure 7. Analogy of a SQUID in a magnetic field and light interfering through two slits.

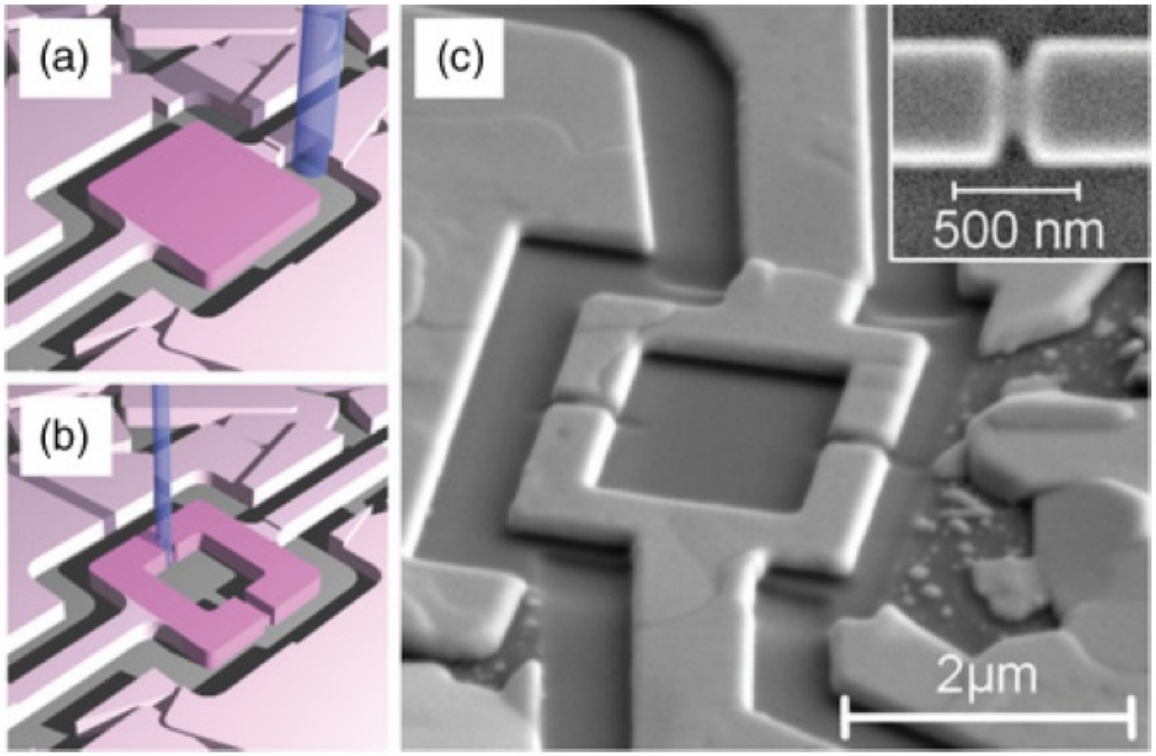

FIG. 1. (Color online) (a) FIB milling of the microcrystal with its current and voltage leads out of the interconnected crystals, (b) FIB milling of the loop center and the bridges, and (c) SEM micrograph of the such prepared SQUID. The inset in (c) shows a detailed view of one of the two bridges. The loop dimensions are 2.1 μm $\times$ 1.9 μm as a mean value between the outer and inner diameters, respectively. The