

Spectral AI, Inc.
2515 McKinney Avenue, Suite 1000
Dallas, Texas 75201

January 30, 2024

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

Re: Spectral AI, Inc.
Registration Statement on Form S-1/A (File No. 333-276406)

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933 and on behalf of Spectral AI, Inc. (the "Company"), the undersigned hereby requests that the Company's Registration Statement on Form S-1/A (File No. 333-276406) filed with the U.S. Securities and Exchange Commission (the "Commission") on January 23, 2024 (the "Registration Statement"), be declared effective on February 1, 2024, at 4:30 p.m., Eastern Standard Time, or as soon as practicable thereafter.

Very truly yours,

SPECTRAL AI, INC.

By: /s/ Wensheng Fan
 Wensheng Fan
 Chief Executive Officer

cc:

Herbert F. Kozlov, Esq., Reed Smith LLP
Anthony J. Marsico, Esq., Reed Smith LLP
Lynwood E. Reinhardt, Esq., Reed Smith LLP
