

# Novel Reflective Microscope Objective Lens For All Colors

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## BRIEF DESCRIPTION

The researchers at the University of California, Irvine (UCI) have developed a microscopic lens, made entirely of reflective curved surface, where all the light wavelengths are focused at the same time for better resolution and larger field view of the image.

## SUGGESTED USES

Easy to integrate in microscopic frames (for example Zeiss and Olympus)

## FEATURES/BENEFITS

- The design can fit over the commercially available microscopes
- Higher precision compared to current designs
- Can be set-up simultaneously with FT-IR, Raman, UV-Vis among other microscopes

## TECHNOLOGY DESCRIPTION

Reflective optics are of great importance in ultra-violet and infrared astronomy and spectroscopy applications. Traditional reflective lenses, made of glass, possess design problems that include, for example, poor contrast and limited field of view.

The researchers at the University of California, Irvine (UCI) have developed a high magnification microscope objective lens made entirely of reflective curved surfaces, where the wavelength of light are focused equally and minimizes dispersion.This newly designed microscopic lens allows for more light to be transmitted through the optic lens and delivers a higher contrast, precision and resolution over a larger field of view in an achromatic manner.

The objective lens is compatible with most commercially available microscopes and spectroscopy including FT-R, Raman, UV-VIS, multiphoton fluorescence and multimodal nonlinear optical microscopes.

## STATE OF DEVELOPMENT

The optical and opto-mechanic designs have been finalized. The prototype should be available soon to test on a custom microscope.

## PATENT STATUS

## CONTACT

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## INVENTORS

- » Hanninen, Adam
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## OTHER INFORMATION

## CATEGORIZED AS

- » **Optics and Photonics**
  - » All Optics and Photonics
- » **Imaging**
  - » Medical
- » **Medical**
  - » Imaging
- » **Sensors & Instrumentation**
  - » Scientific/Research

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