

# Application Note

by Distek, Inc.

In-situ UV Fiber Optic measurement of  
Ibuprofen (400mg) in Phosphate Buffer,  
pH 7.2 using the Opt-Diss 405.

**November 2015**

*Sponsored by*



# Method Conditions

**Path Length:** 5 mm  
**Wavelength:** 264 nm  
**Unit Dosage:** 400 mg  
**Media:** Phosphate Buffer, pH 7.2  
**Volume:** 900 mL  
**Run Time:** 1 Hour  
**Time Points:** 76

**Baseline Correction Method:**  
Average Over Range (300 - 350 nm)

# Standard Results

	<u>NAME</u>	<u>CONCENTRATION</u> (mg / mL)
STD A	Ibuprofen	0.442
STD B	Ibuprofen	0.442
ABS A:	0.3510	
ABS B:	0.3517	
RF Used:	0.7942	
RF Ratio:	0.9980	

## % Dissolved

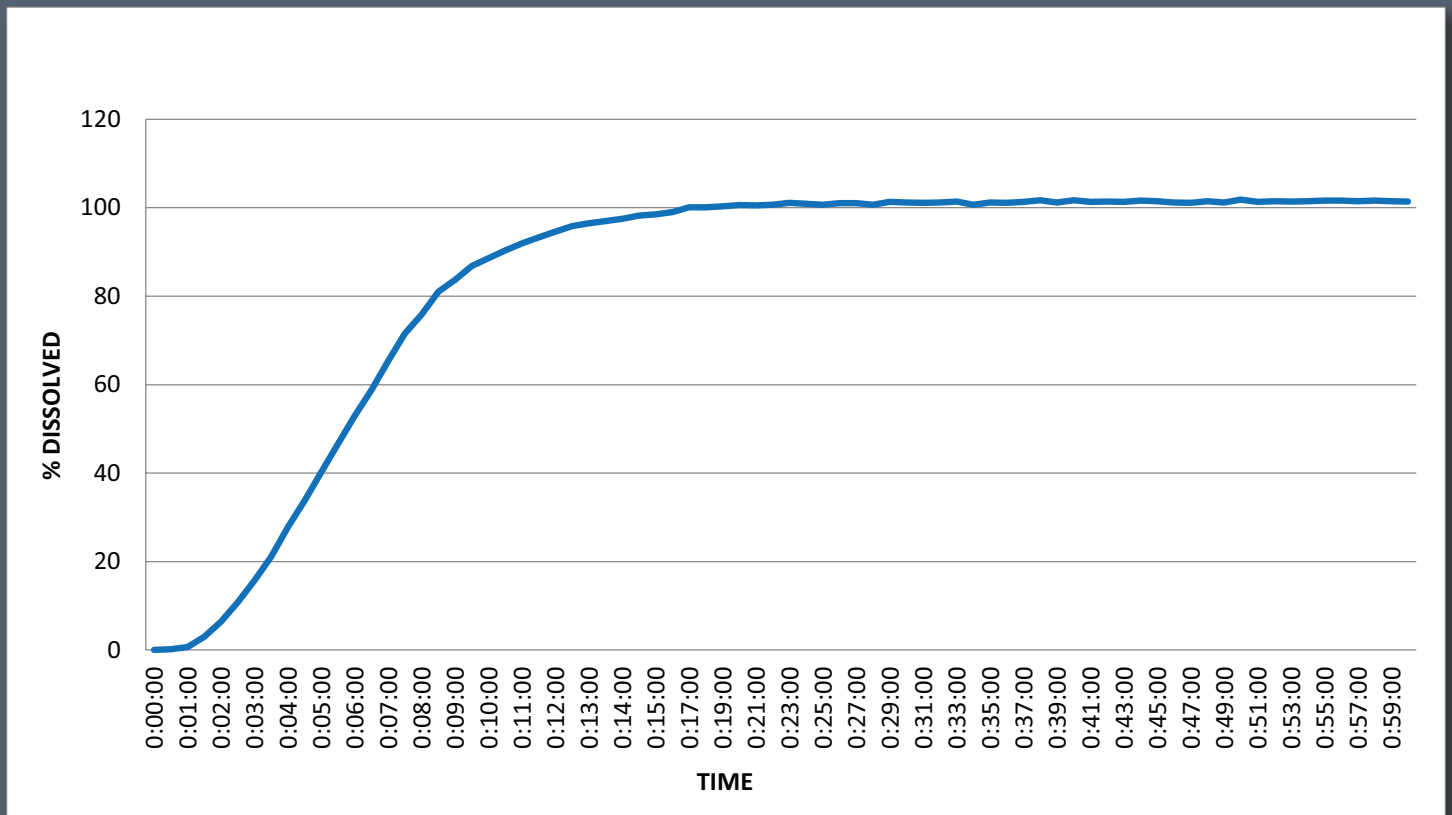


Figure 1: Dissolution results obtained by the Opt-Diss 405 for 400 mg Ibuprofen

# Sample Absorbance Spectra

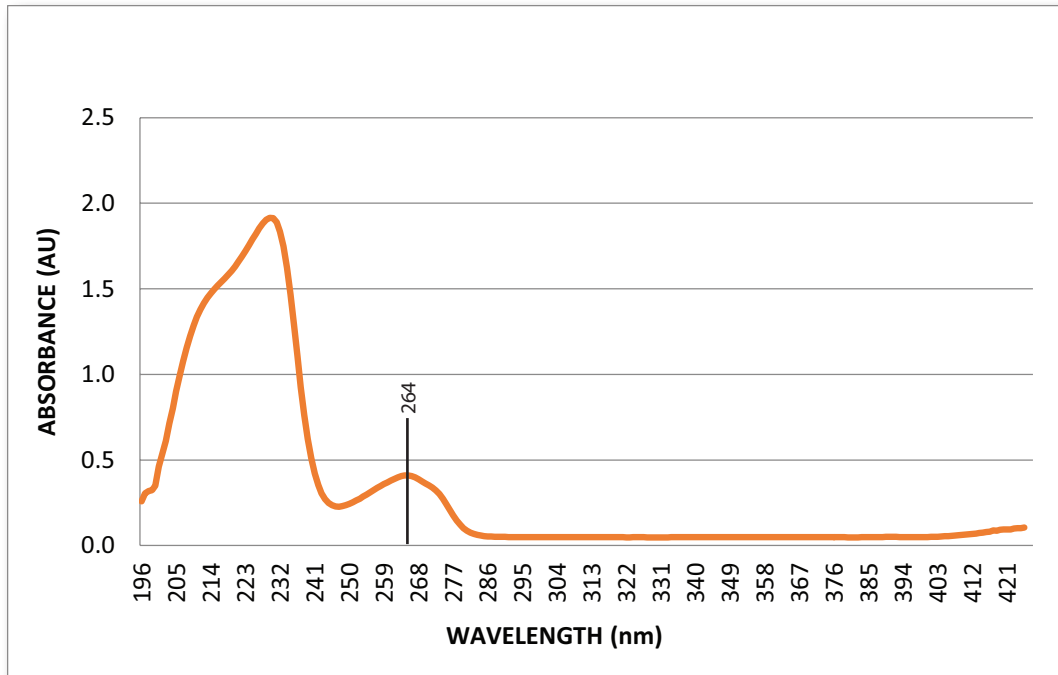


Figure 2: Sample Absorbance Spectra obtained by the Opt-Diss 405 for 400 mg Ibuprofen

# Standard Absorbance Spectra

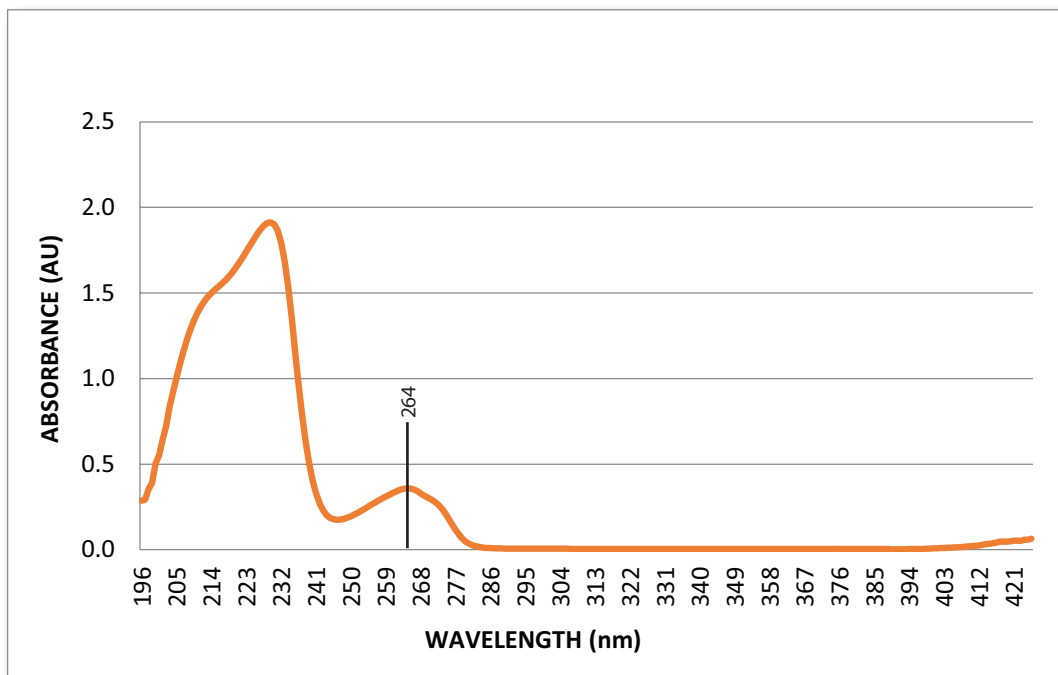


Figure 3: Standard Absorbance Spectra obtained by the Opt-Diss 405 for 400 mg Ibuprofen

# ABOUT US

Distek, Inc. is a leading manufacturer of pharmaceutical laboratory instruments, specializing in dissolution testing products, as well as an experienced provider of validation and qualification services.

In addition, Distek provides solutions for dissolution media degassing, dispensing and disposal, in-situ fiber optic UV, bathless tablet disintegration testing, physical tablet testing, content uniformity / sample preparation, dissolution video monitoring and automated sampling.

Founded in 1976, Distek has grown to offer innovation and support to companies worldwide. Our success is dependent upon Distek's employees, who bring their expertise, experience, and dedication to providing pharmaceutical laboratory instruments and services of the finest quality. The company's commitment to excellence extends to the community, as Distek actively supports educational and research activities with donations of equipment and assistance.

For technological advancements that offer reliable and consistent performance, the pharmaceutical industry trusts Distek.

## **Distek, Inc.**

121 North Center Drive  
North Brunswick, NJ 08902  
888.2.DISTEK  
info@distekinc.com  
www.distekinc.com