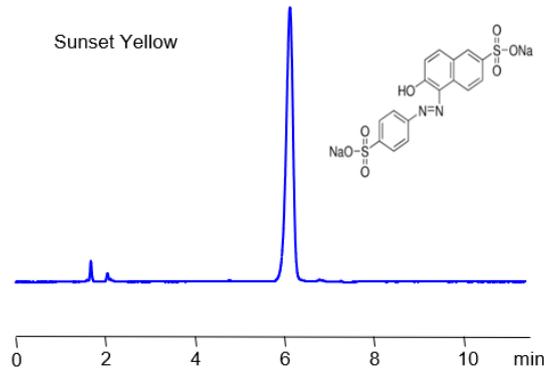


## HPLC Method for Analysis of Sunset Yellow on BIST A Column



<b>Column:</b>	BIST <sup>TM</sup> A
<b>Column size:</b>	4.6 × 150 mm, 5 µm
<b>Column part number:</b>	TA-46. 150.0510
<b>Mobile phase:</b>	MeCN/H <sub>2</sub> O - 80/20%
<b>Buffer:</b>	TMDAP formate pH 4.0 - 5 mM
<b>Flow rate:</b>	1.0 mL/min
<b>Detection:</b>	Vis 490 nm

Sunset Yellow is a popular orange-yellow synthetic dye used in a wide variety of food products. Using SIELC's newly introduced BIST<sup>TM</sup> method, Sunset Yellow, which ionizes in water, can be retained on a negatively-charged, cation-exchange BIST<sup>TM</sup> A column. There are two keys to this retention method: 1) a multi-charged, positive buffer, such as N,N,N',N'-Tetramethyl-1,3-propanediamine (TMDAP), which acts as a bridge, linking the negatively-charged Sunset Yellow analytes to the negatively-charged column surface and 2) a mobile phase consisting mostly of organic solvent (such as MeCN) to minimize the formation of a solvation layer around the charged analytes. The effect of reducing the solvation layer by increasing the organic component concentration in the mobile phase can be clearly seen above. Using this new and unique analysis method, Sunset Yellow can be retained and UV detected at 270 nm.

You can find detailed UV spectra of Yellow 6 and information about its various lambda maxima by visiting the following link.

### Method Parameters

<b>Column</b>	BIST A, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
<b>Mobile Phase</b>	MeCN – 80/20%
<b>Buffer</b>	TMDAP formate pH 4.0 – 5,0 mM
<b>Flow Rate</b>	1.0 mL/min
<b>Detection</b>	Vis 490 nm

Quelle: <https://sielc.com/hplc-determination-of-sunset-yellow-2>