

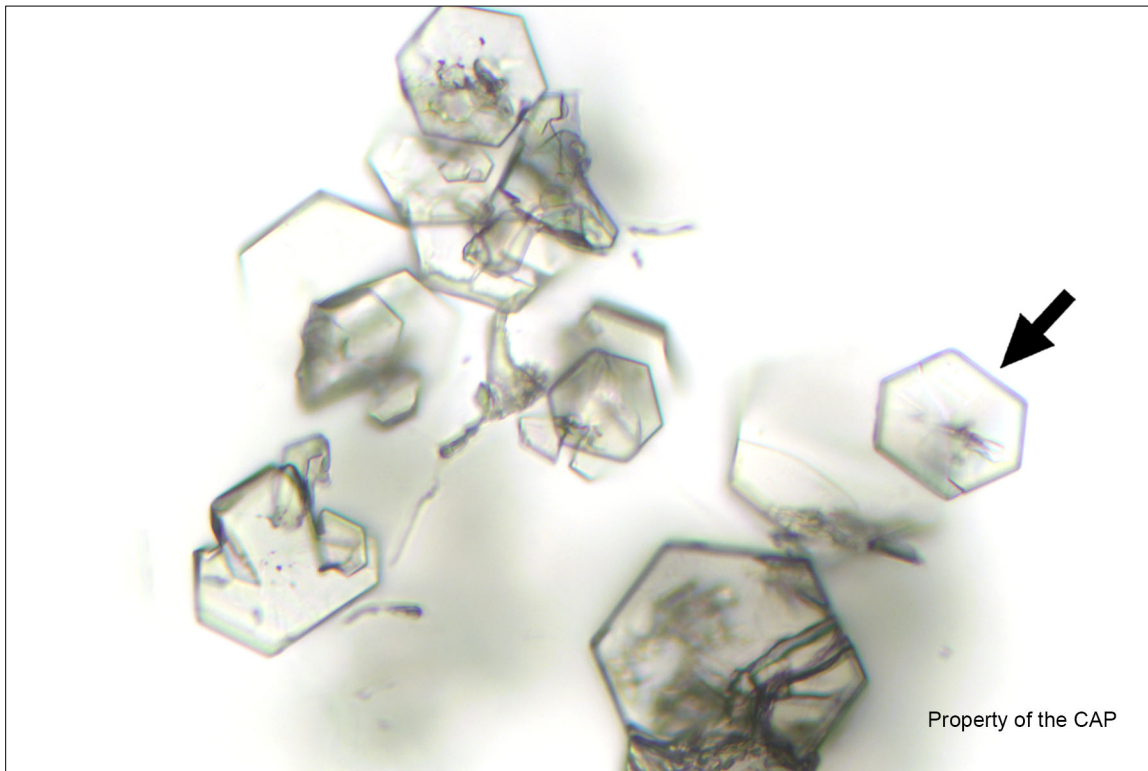
## Urine Sediment Photographs

### Case History CMP-04 through CMP-06

This urine sample is obtained from a 66-year-old woman with a history of recurrent kidney stones. Laboratory data include: specific gravity = 1.017; pH = 5.0; glucose, ketone, bilirubin, leukocyte esterase, nitrite, and urobilinogen = negative; protein and blood = positive. Identify the arrowed object(s) on each image.

(URINE, UNSTAINED, HIGH POWER)

### CMP-04



Identification	Participants		Evaluation
	Freq	%	
Cystine crystals	5893	98.2	Good

The arrowed object is a cystine crystal, as correctly identified by 98.2% of participants. The cystine crystals in this unstained wet preparation are identified by their distinctive hexagonal shape and clear colorless appearance. These crystals are present in patients with cystinosis, a congenital autosomal recessive condition. They are also present in patients with renal stones. They can sometimes be confused with similarly shaped uric acid crystals. When in question, amino acid analysis can be used to confirm cystinosis.