

Material Certificate of Compliance

This is to certify that the ZNSE material supplied by
II-VI Incorporated to (Customer) CALIFORNIA INSTITUTE OF TECH. on
buyer's Purchase Order Number 75ADVS115682 is:

 Optical
 X **Laser** **Grade material**
 Prism

This material has been inspected and tested per II-VI Incorporated's standard
Quality Assurance material qualification procedures. This material is certified to
meet any additional requirements as agreed upon between the buyer and II-VI
Incorporated.

CUSTOMER PN N/A
II-VI PN 237734 (BLANK PN 638905)
ZNSE WINDOW 3.0" DIA. X .5" THK AR/AR

Remarks:

This Material Certificate of Compliance applies to:

II-VI Sales Order Number 373034
Item 1
Quantity 8
Furnace Run Number(s) G217B, G222A,
G219A

Signature Michelle Roofner
Title QAI
Date 7-19-2011

II-V INFRARED

375 Saxonburg Boulevard
Saxonburg, PA 16056
U.S.A

	Coating Type	AOI	Pol.
S1	UC	0	R-POL
S2	UC	0	R-POL

Wavelength .400-2.5 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G217B-X

Notes .257" Thick A.490

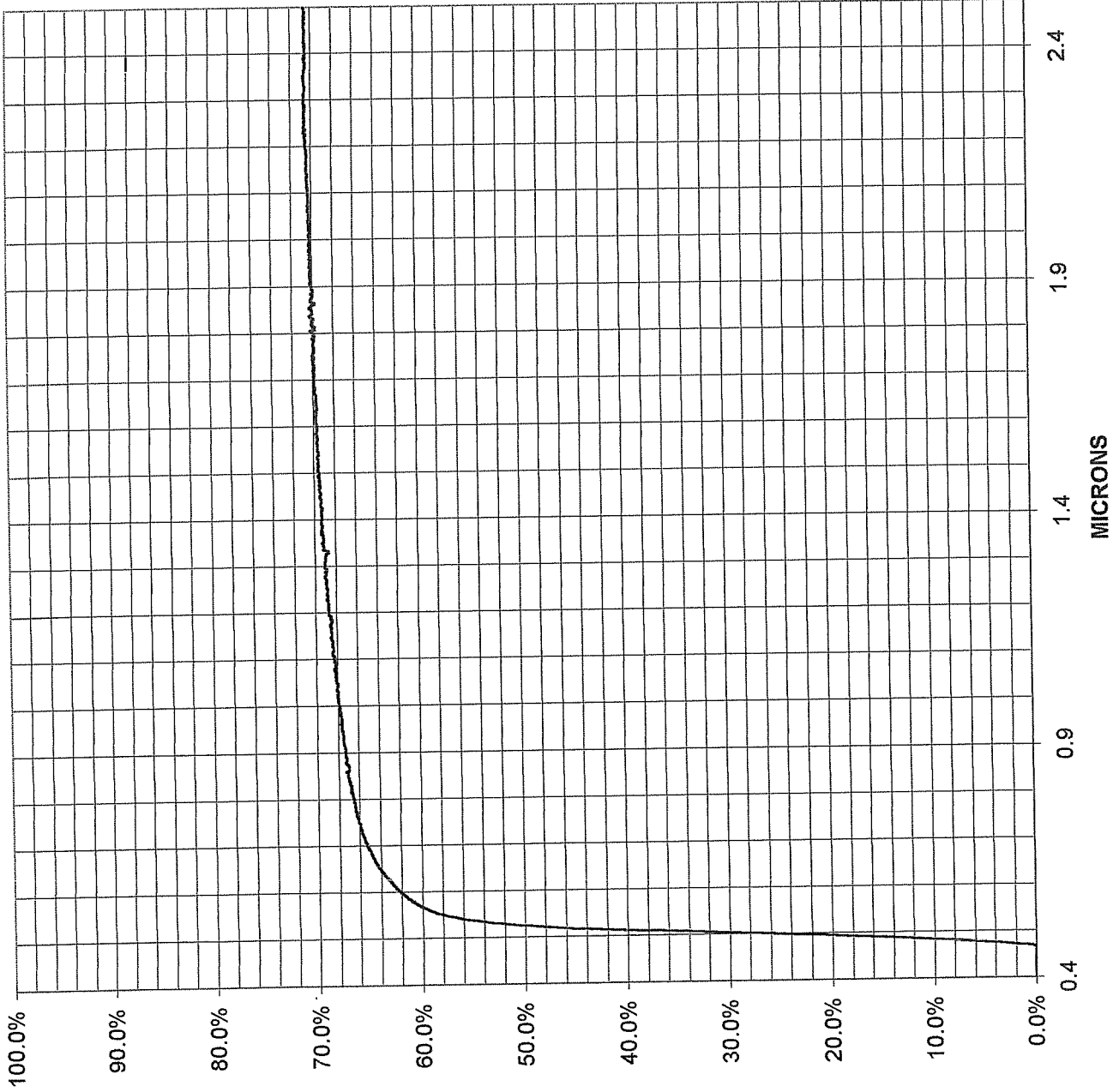
Date 11-1-2010

Witness Sample ZnSe

Scale 0-100%

Operator MRR

Spectrophotometer traces are appropriate for determining the centering and reflectivity or transmission performance of a coating at a particular wavelength range. The reflectivity or transmission shown at any given wavelength may be $\pm 3\%$ of the actual value. The most accurate method of determining the reflectivity or transmission of a coating at its design wavelength is by laser test. Contact your sales representative for more information on laser tests or test data for specific optics.





375 Saxonburg Boulevard
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Coating Type	AOI	Pol.
S1 UC	0	R-POL
S2 UC	0	R-POL

Wavelength 2.5 -16 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G217B-X

Notes .257" Thick

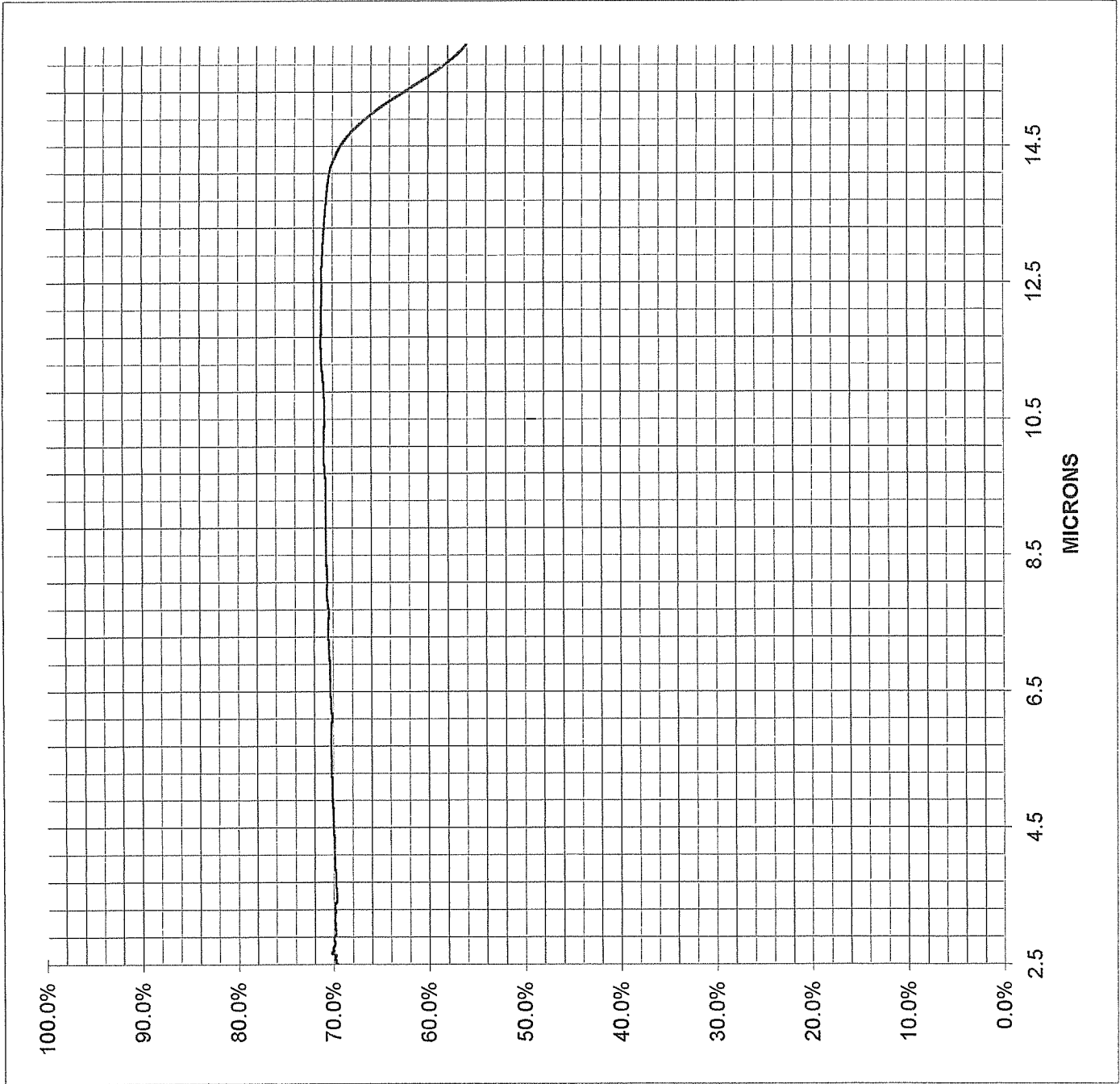
Date 11-1-2010

Witness Sample ZnSe

Scale 0-100%

Operator MRR

Spectrophotometer traces are appropriate for determining the centering and reflectivity or transmission performance of a coating at a particular wavelength range. The reflectivity or transmission shown at any given wavelength may be $\pm 3\%$ of the actual value. The most accurate method of determining the reflectivity or transmission of a coating at its design wavelength is by laser test. Contact II-VI Incorporated for more information on laser tests or test data for specific optics.



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	Coating Type	AOI	Pol.
S1	UC	0°	R
S2	UC	0°	R

Wavelength/s 0.4-2.5 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G222A-X

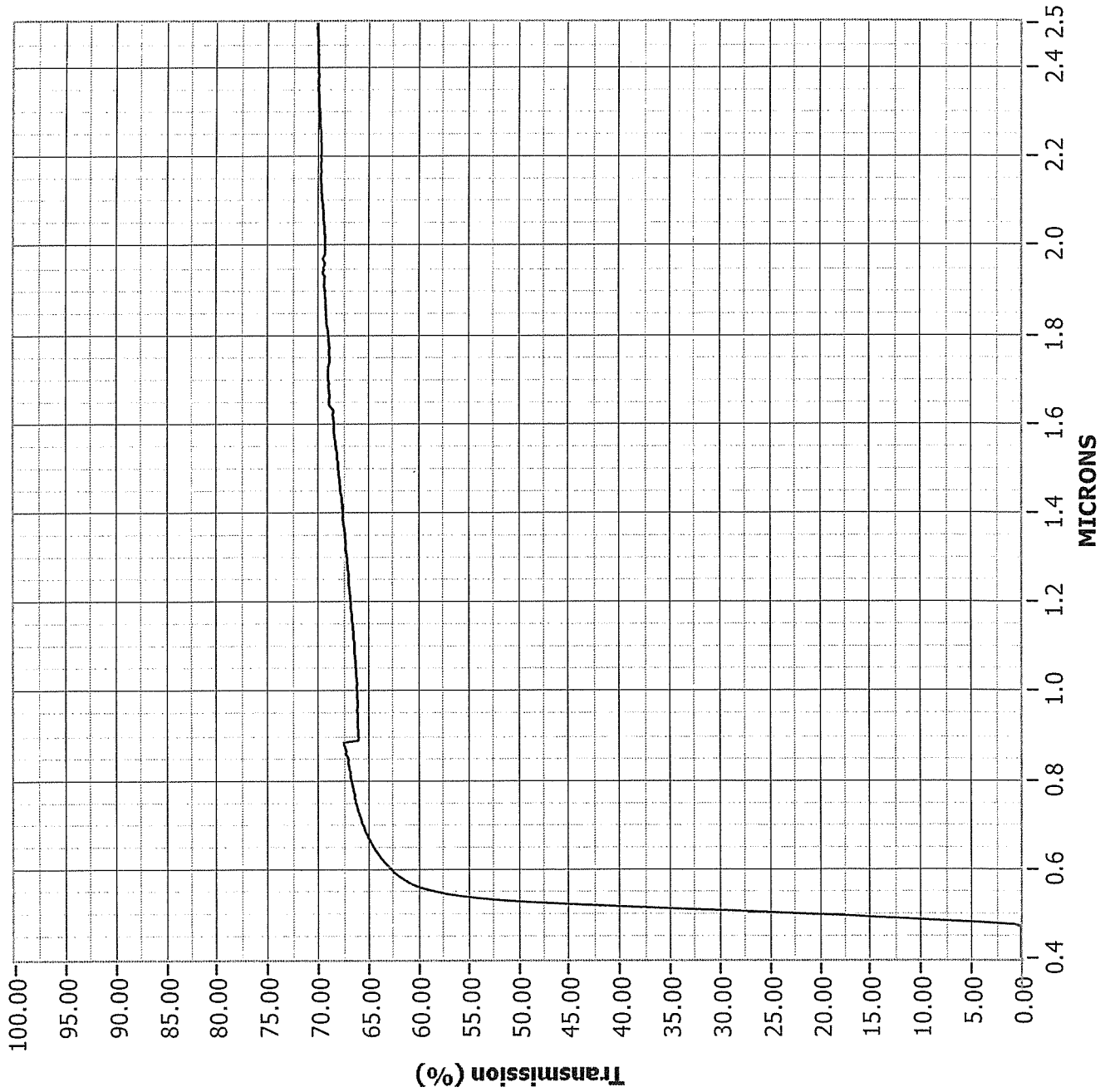
Notes .218"

Date 3/7/2011

Witness Sample ZnSe

Scale 0-100%

Operator HDO



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Coating Type	AOI	Pol.
S1 UC	0	R-POL
S2 UC	0	R-POL

Wavelength 2.5 -16 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G222A-X

Notes .218" Thick

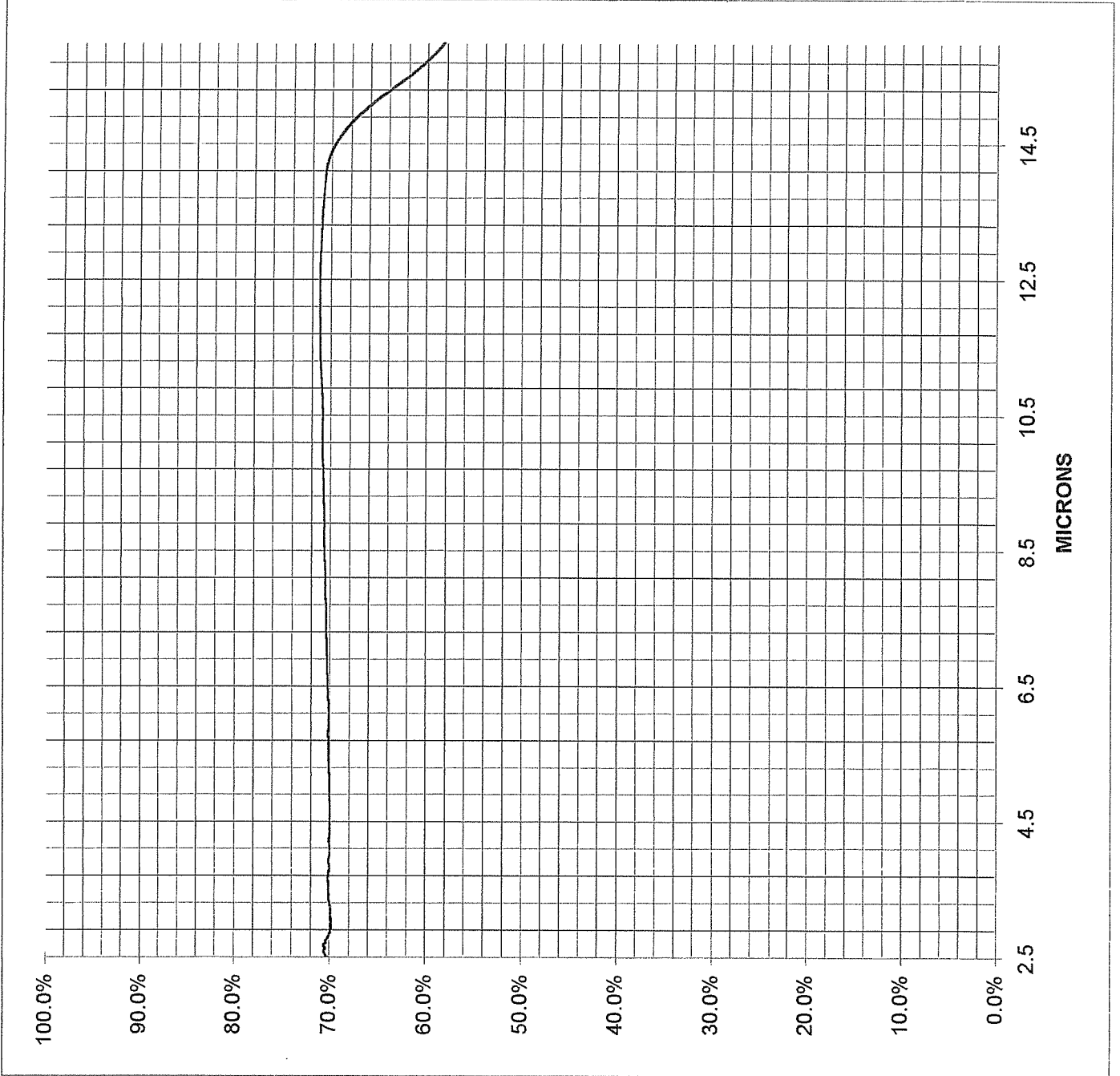
Date 3-7-2011

Witness Sample ZnSe

Scale 0-100%

Operator HDO

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	Coating Type	AOI	Pol.
S1	UC	0°	R
S2	UC	0°	R

Wavelength/s 0.4-2.5 μm

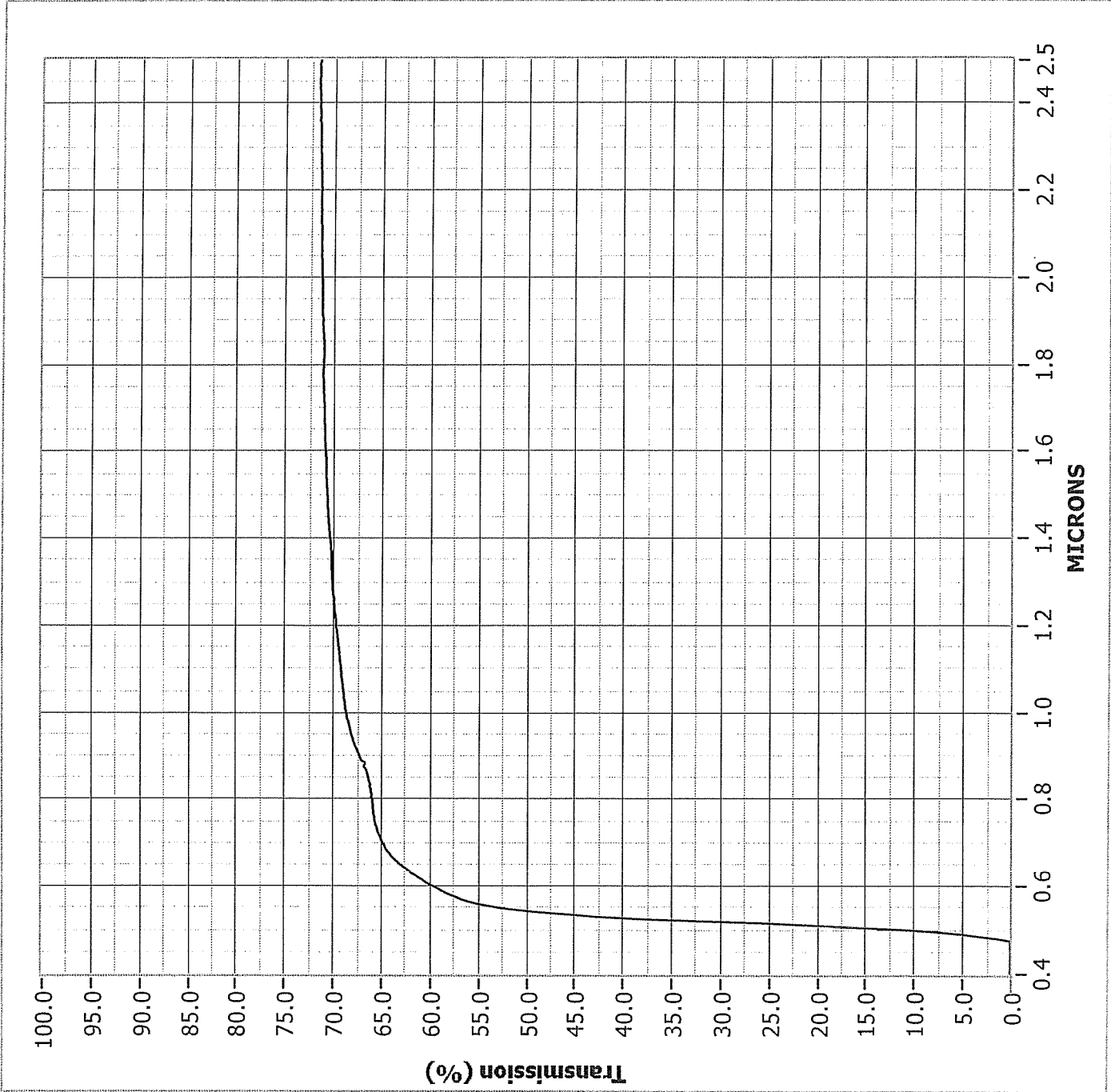
% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G219A-X
 Notes .255"
 Date 12/17/2010
 Witness Sample znse
 Scale 0-100%
 Operator KJS

Spectrophotometer traces are appropriate for determining the centering and reflectivity or transmission performance of a coating at a particular wavelength range. The reflectivity or transmission shown at any given wavelength may be $\pm 3\%$ of the actual value. The most accurate method of determining the reflectivity or transmission of a coating at its design wavelength is by laser test. Contact your sales representative for more information on laser tests or test data for specific optics.





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	Coating Type	AOI	Pol.
S1	UC	0	R-POL
S2	UC	0	R-POL

Wavelength 2.5 -16 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. G219A-X

Notes .255" Thick

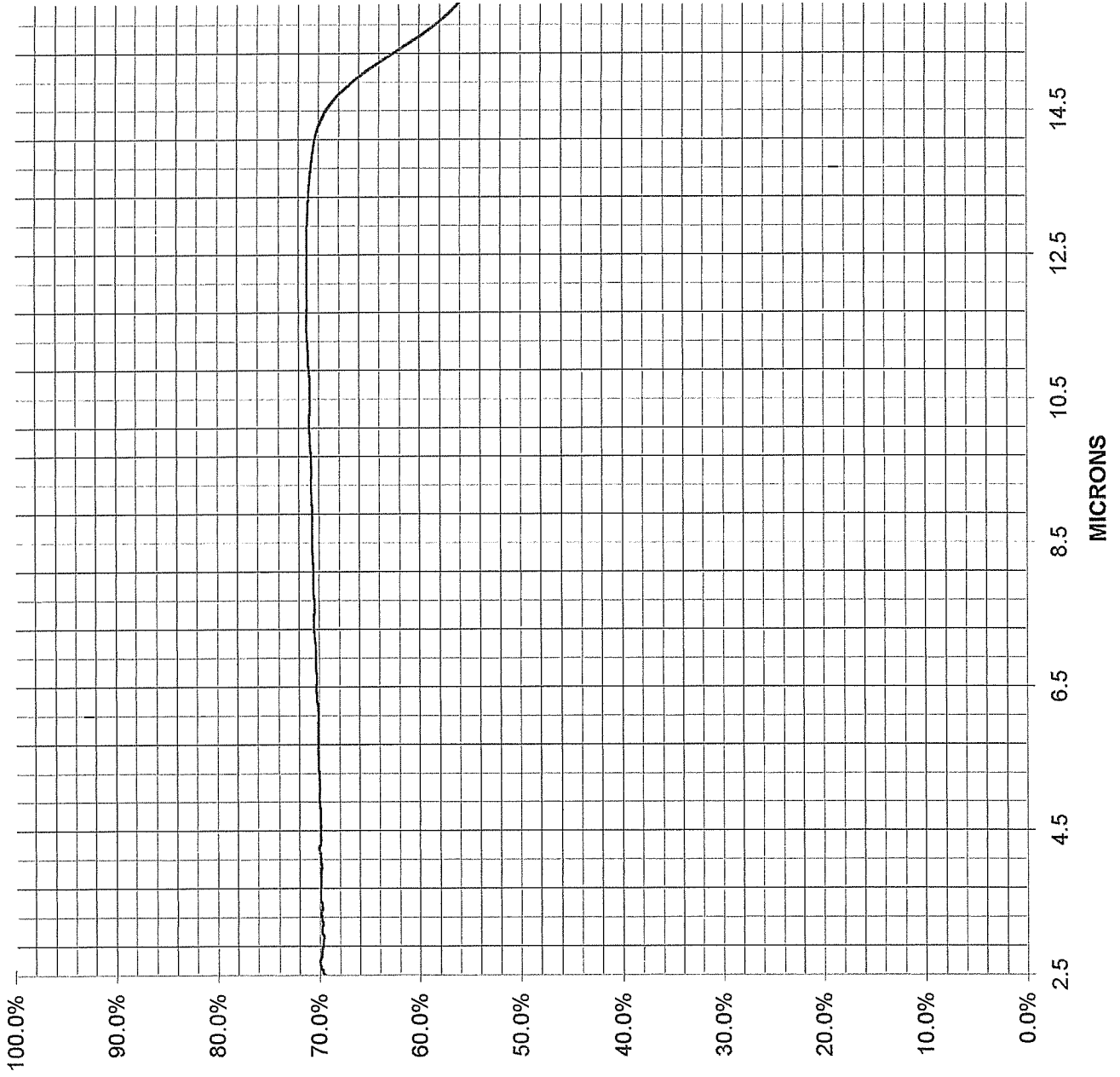
Date 12-09-2010

Witness Sample ZnSe

Scale 0-100%

Operator BTS

Spectrophotometer traces are appropriate for determining the centering and reflectivity or transmission performance of a coating at a particular wavelength range. The reflectivity or transmission shown at any given wavelength may be $\pm 3\%$ of the actual value. The most accurate method of determining the reflectivity or transmission of a coating at its design wavelength is by laser test. Contact II-VI Incorporated for more information on laser tests or test data for specific optics.



Material Certificate of Compliance

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II-VI Incorporated to (Customer) CALIFORNIA INSTITUTE OF TECH. on
buyer's Purchase Order Number 75ADVS115682 is:

 Optical
X **Laser** **Grade material**
 Prism

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Quality Assurance material qualification procedures. This material is certified to
meet any additional requirements as agreed upon between the buyer and II-VI
Incorporated.

CUSTOMER PN N/A
II-VI PN 313223 (BLANK PN 704379)
ZNSE WINDOW 3.0" DIA. X .25" THK AR/AR

Remarks:

This Material Certificate of Compliance applies to:

II-VI Sales Order Number	<u>373034</u>
Item	<u>2</u>
Quantity	<u>8</u>
Furnace Run Number(s)	<u>D407B, H190A</u>
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Signature Michelle Roegner
Title QAI
Date 7-19-2011

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375 Saxonburg Boulevard
Saxonburg, PA 16056
U.S.A

	Coating Type	AOI	Pol.
S1	UC	0	R
S2	UC	0	R

Wavelength/s 0.400 - 2.5 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. D407B-X

Notes .239" Thickness λ .999

Date 6/16/2011

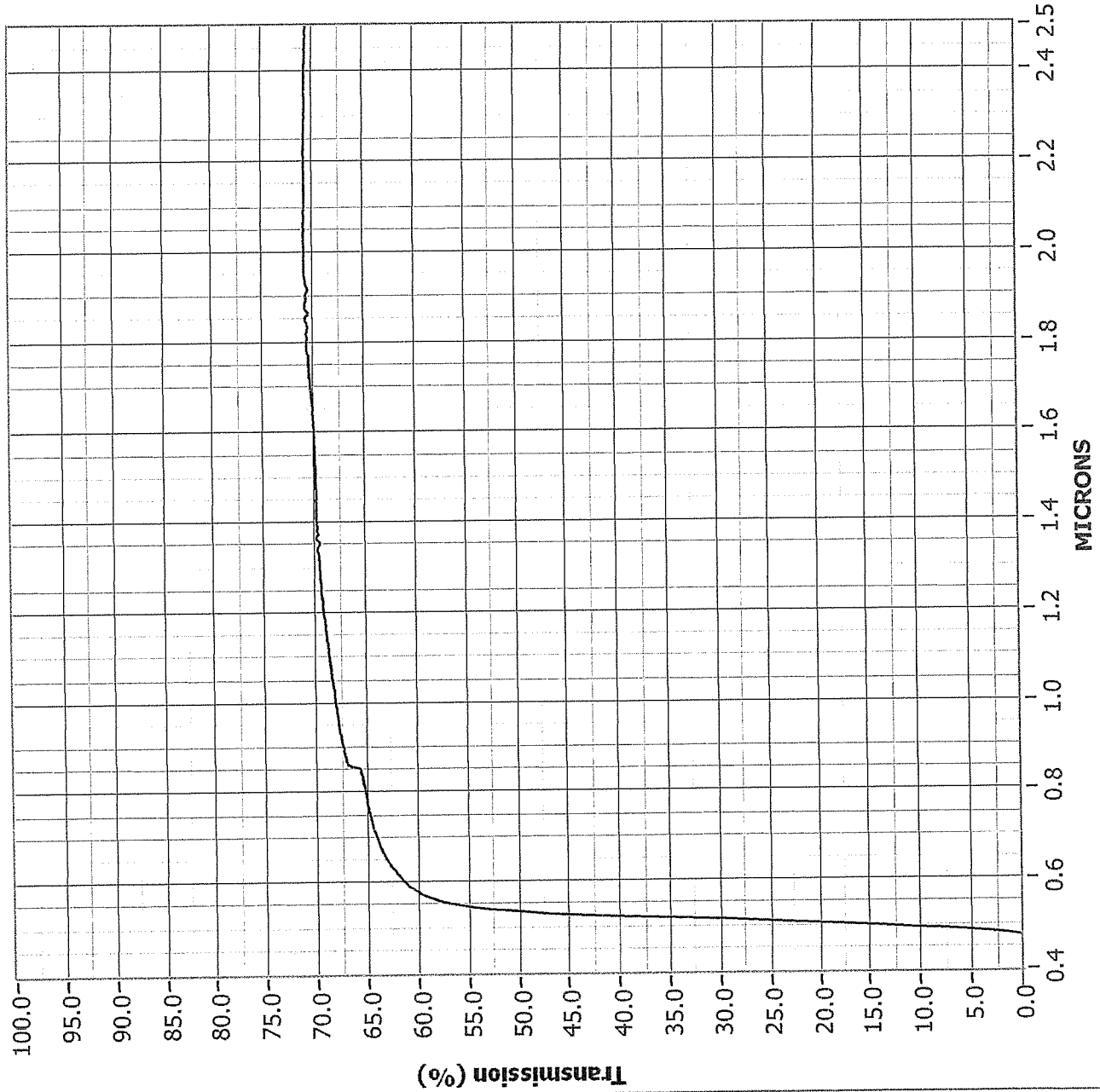
Witness Sample ZnSe

Scale 0-100%

Operator AP

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375 Saxonburg Boulevard
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	Coating Type	AOI	Pol.
S1	UC	0	R-POL
S2	UC	0	R-POL

Wavelength 2.5 -16 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. D407B-X

Notes .239" Thick

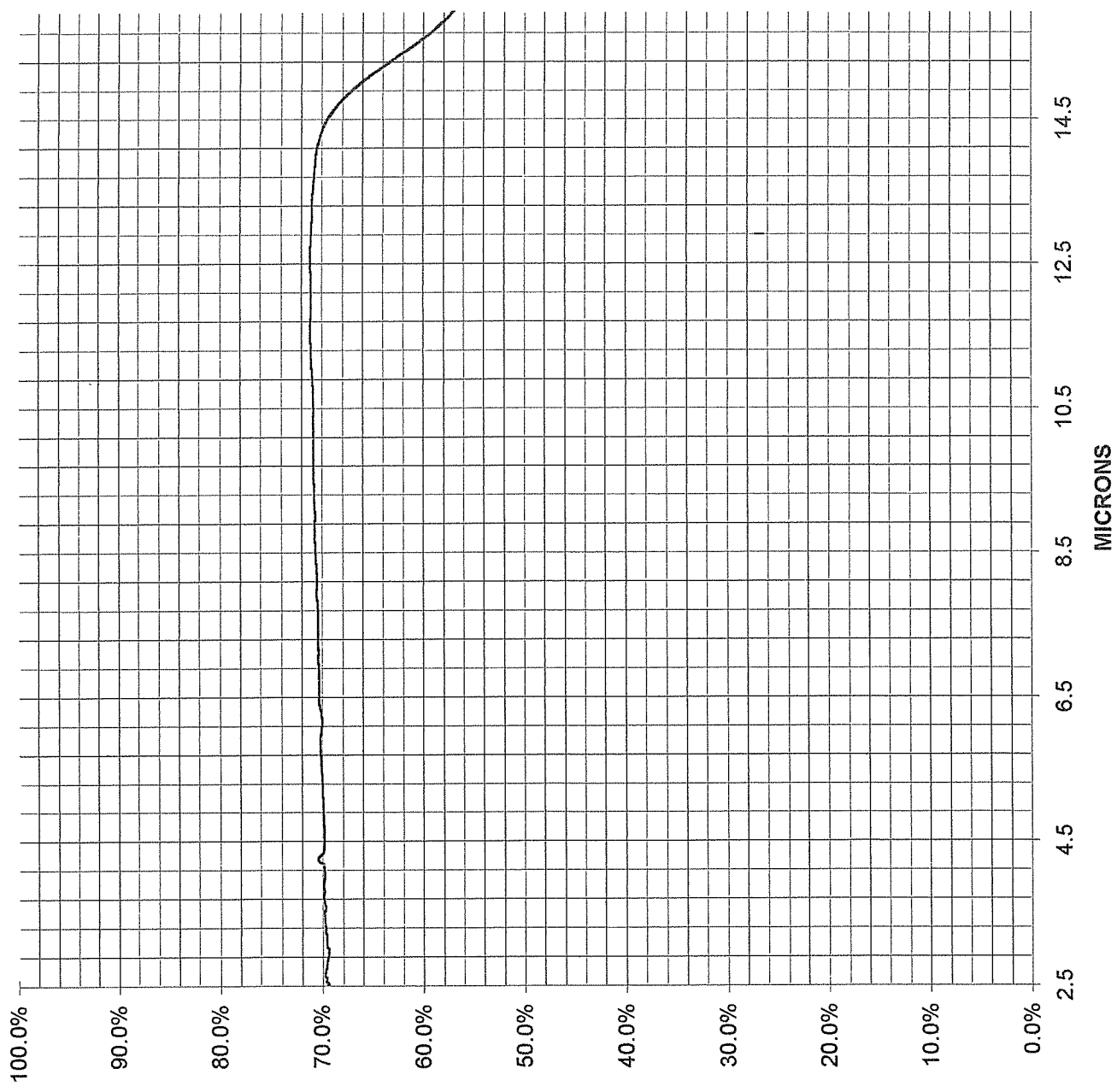
Date 6-16-2011

Witness Sample ZnSe

Scale 0-100%

Operator MRR

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	Coating Type	AOI	Pol.
S1	UC	0°	R
S2	UC	0°	R

Wavelength/s 0.4-2.5 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. H190A-X

Notes .254"

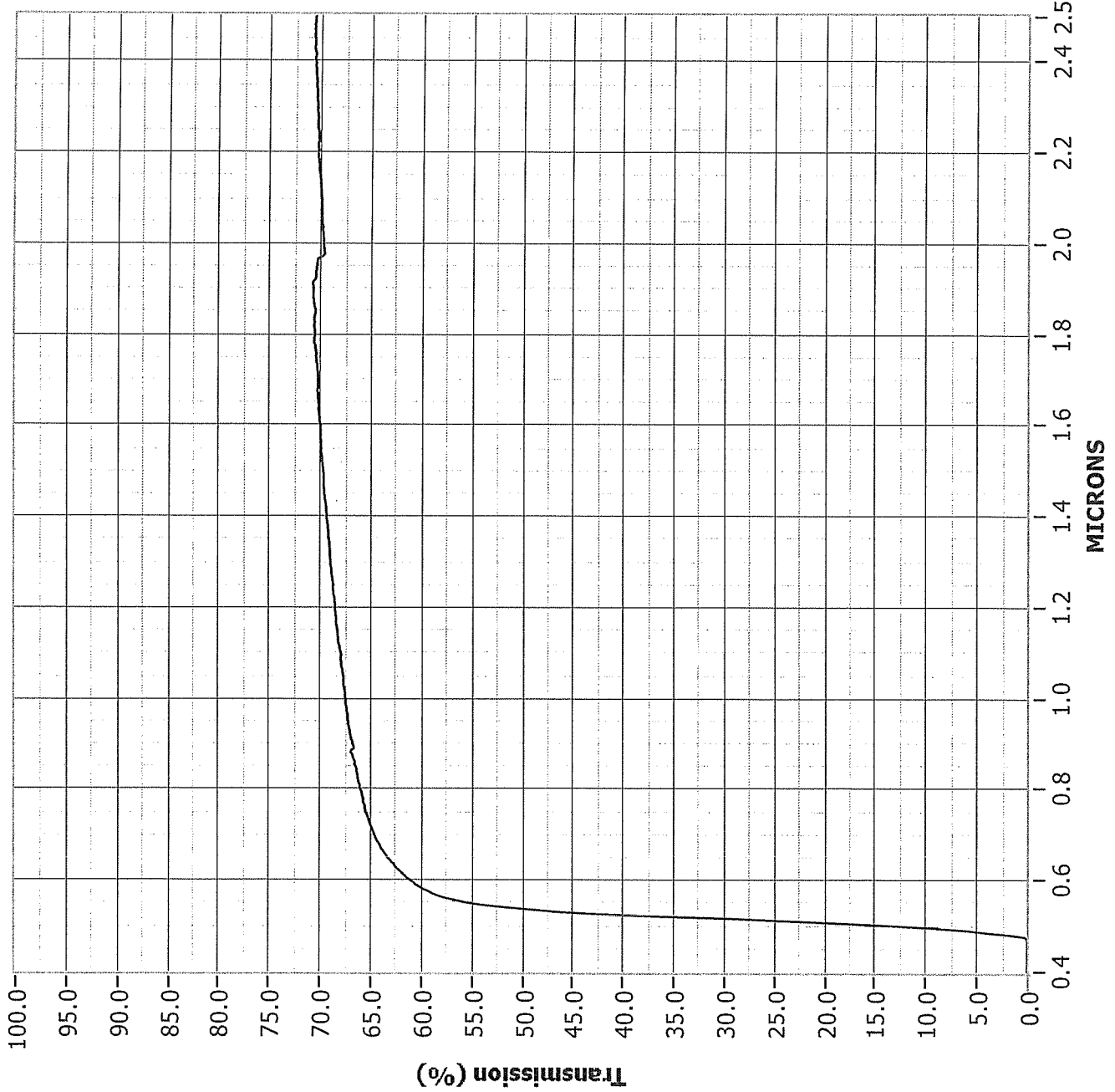
Date 4/18/2011

Witness Sample ZnSe

Scale 0-100%

Operator HDO

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Coating Type	AOI	Pol.
S1 UC	0	R-POL
S2 UC	0	R-POL

Wavelength 2.5 -16 μm

% Transmission % Reflection

Traced On:

Side 1 Side 2 Side 1 and Side 2

Coating Run No. H190A-X

Notes .254" Thick

Date 4-14-2011

Witness Sample ZnSe

Scale 0-100%

Operator HDO

Spectrophotometer traces are appropriate for determining the centering and reflectivity or transmission performance of a coating at a particular wavelength range. The reflectivity or transmission shown at any given wavelength may be $\pm 3\%$ of the actual value. The most accurate method of determining the reflectivity or transmission of a coating at its design wavelength is by laser test. Contact II-VI Incorporated for more information on laser tests or test data for specific optics.

