

EBSD and BKD

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	ambiguity of a rotation	die Zwei-, Mehr- oder Vieldeutigkeit einer Drehung und somit einer Orientierung	l'ambiguïté d'une rotation
ACOM	Automated Crystal lattice Orientation Microscopy	ACOM, die Automatische Kristall-Orientierungs-Mikroskopie	la cartographie automatisée de l'orientation des cristaux
ANN	Artificial Neural Network	KNN, das Künstliche Neuronale Netzwerk	réseau neuronal artificiel
	anomalous absorption	die anomale Absorption	l'absorption anormale
	angular coordinates	Winkelkoordinaten	les coordonnées angulaires
	approximation condition	die Näherungs-Bedingung	la condition d'approximation
	average value, mean value	der Mittelwert, gemittelter Wert	la valeur moyenne
	area detector: 2D (image) detector	der Flächendetektor	détecteur de zone : détecteur 2D (image)
BCC	Body-Centered Cubic crystal lattice	krz, kiz, bcc: das raumzentrierte kubische Kristallgitter, das kubisch innenzentrierte Gitter	réseau cristallin cubique centré sur l'espace
	binning: grouping of neighboring pixels to form "super pixels"	das Binning: die Zusammenfassung von Bildpunkten zu „Super-Pixel“	binning: regroupement de pixels voisins pour former de "super pixels"
BKD	Backscatter Kikuchi Diffraction	BKD: die Rückstreu-Elektronenbeugung, Kikuchi-Beugung in Rückstreuung	BKD : la diffraction de Kikuchi en électrons rétrodiffusés
BKP	Backscatter Kikuchi diffraction Pattern (see EBSP)	BKP: das Elektronen-Beugungsdiagramm in Rückstreuung	BKP: Diagramme de rétrodiffusion de Kikuchi = EBSP
	Bloch wave	die Blochwelle	l'onde de Bloch
	Bragg diffraction	die Braggsche Beugung	la diffraction de Bragg
BF / DF	In Bright Field imaging (BF), the central non-diffracted beam is selected for imaging. In Dark Field imaging (DF) it is a diffracted beam.	HF, die Hellfeldabbildung / DF Dunkelfeldabbildung	l'imagerie en champ clair / sombre
BSE	BackScattered Electrons	Rückstreu-Elektronen	les électrons rétrodiffusés
CBED	Convergent Beam Electron Diffraction (to produce Kossel-Möllenstedt patterns and Zone Axis patterns)	die (Weitwinkel-)Beugung im konvergenten Bündel, CBED (Kossel-Möllenstedt und Zonenachsen-Diagramme)	CBED : la diffraction électronique à faisceau convergent
	conformal (= angle preserving) projection, Lambert projection	die winkeltreue Projektion, Lambert-Projektion	la projection préservant les angles, projection de Lambert
COM	Crystal Orientation Map, Crystal Orientation Map(ping)	die (Kristall-)Orientierungs-Kartographie	la cartographie de l'orientation des cristaux
	computer	der Computer, Rechner	l'ordinateur
	contamination: The impact of electrons causes the formation of an unwanted hydrocarbon layer, which obscures the image and the diffraction pattern.	die Kontamination	la contamination
	crystal structure	die Kristallstruktur	la structure du cristal, la structure cristalline,
	Debye-Scherrer ring	der Debye(-Scherrer)-Ring	l'anneau de Debye-Scherrer
	diffraction contrast	der Beugungscontrast	contraste par diffraction

	dynamical diffraction	die dynamische Beugung	la diffraction dynamique
	earing	die Zipfelbildung	earing
EBSD	Electron Back Scatter Diffraction: commercial term for ACOM with the SEM (not to confound with other backscatter electron diffraction techniques such as RHEED, LEED, ECP)	EBSD, die ElektronenRückstreuBeugung	EBSD
EBSP	Electron Back Scattered Pattern (= BKP)	das Elektronen-RückstreuDiagramm	EBSP : Diagramme de rétrodiffusion de Kikuchi = BKP
ECP	Electron Channeling Pattern: Backscatter electron diffraction pattern produced with a pivoting beam	ECP, das Elektronen-Channeling-Diagramm	ECP : Diagramme de canalisation des électrons
EDS, EDX	Energy Dispersive X -ray Spectroscopy	Energiedispersive Röntgenspektroskopie, EDS, EDX	EDS, EDX
	elastically scattered electrons	elastisch gestreute Elektronen	électrons diffusés élastiquement
	electron gun	die Elektronenquelle	la source d'électrons
	Equal area projection	die flächentreue Projektion, flächengleiche Projektion	la projection de surface réelle
(φ_1 , Φ , φ_2)	Euler(ian) angles are used to represent the orientation of a crystal with respect to a Cartesian reference frame	die Euler-Winkel	les angles d'Euler
Euler Map	COM using the Euler angles for color coding	Euler-Kartographie	Euler Map
	Ewald sphere	die Ewaldkugel	la boule d'Ewald
	Excitation error	der Anregungsfehler	l'erreur d'excitation
FCC	Face-Centered Cubic crystal lattice	kfz, fcc: das kubisch flächenzentrierte Kristallgitter	FCC
	fluorescent screen: see phosphor screen		
FIB	Field Ion Beam: a source of field-emitted ions, typically gallium or helium, that is used to build a stand-alone scanning ion microscope or as a companion device to a (dual-beam) SEM	FIB, der Feldionen-Strahl, die -Sonde	FIB: La sonde ionique focalisée
FSE	Forward Scattered Electrons	FSE, vorwärtsgestreute Elektronen	FSE, les électrons diffusés vers l'avant
	Friedel's law	die Friedelsche Regel, das Friedelsche Gesetz	la règle de Friedel, le loi de Friedel
	Gaussian distribution	die Gaussverteilung	la distribution gaussienne
GB	a Grain Boundary is the interface between two crystals of the same composition and crystal structure, but of different orientation.	KG, die Korngrenze	le joint de grains
GND	Geometrically Necessary Dislocations	GND, geometrisch notwendige Versetzungen	GND, les dislocations géométriquement nécessaires
HCP	Hexagonal Close-Packed crystal lattice	hdp, hcp: die hexagonal dichteste Kugelpackung	HCP
HT	Hough Transform(ation), an image processing and analysis routine used to locate straight lines in a <i>binary</i> image. HT is a special case of RT.	die Hough-Transformation	la transformation de Hough
	inelastically scattered electrons	inelastisch (auch: unelastisch) gestreute Elektronen	électrons diffusés inélastiquement
HOLZ	High Order Laue Zone	HOLZ, die Laue-Zone höherer Ordnung	HOLZ, la zone de Laue d'ordre élevé
	information depth : The depth of the layer below the sample surface from which the information is collected.	die Informationstiefe, IT	la profondeur de l'information
IPF	The inverse pole figure IPF represents the density distribution of crystallographic directions <uvw> parallel to a sample direction in the standard triangle of stereographic projection.	IPF, die inverse Polfigur	IPF, la figure de pôles inverse
IQ	Image Quality (see PQ)	IQ, entspricht ungefähr der PQ	IQ, la qualité d'image, comparable à PQ
	Indexing Quality: a measure of the angular	ein Zuverlässigkeitswert für die	une valeur de fiabilité de l'indexation

	deviations between detected and recalculated band positions	Indizierung	
	keyboard	Tastatur	le clavier
	kinematical diffraction	die kinematische Beugung	la diffraction cinématique
	Kikuchi band	das Kikuchi-Band	la bande de Kikuchi
	Kikuchi pattern	das Kikuchi-Diagramm	le diagramme de Kikuchi
L	camera length: distance from the beam spot on the specimen to the pattern center on the phosphor screen	die Beugungslänge L	la distance L de diffraction
	Laue pattern	das Laue-Diagramm	le diagramme de Laue
	Lankford parameter, strain ratio	der r-Wert, das Dehnungsverhältnis	le paramètre de Lankford, rapport de déformation
LEED	Low Energy Electron Diffraction: Backscatter electron diffraction with a primary beam of usually less than 5 keV at normal incidence on a bulk crystal	LEED	LEED
	materialography is the study of the physical structure and components of solids, by using microscopy and methods of sample preparation. Metallography is focused on metals.	die Materialografie	matérialographie
Miller Map	COM using the Miller Indices of two reference directions for color coding	die Miller-Kartographie	la cartographie de Miller
	microstructure	das Gefüge	microstructure
MBD	Micro Beam electron Diffraction: Electron diffraction in transmission or backscattering mode with a fine-focused beam spot	die Feinstrahl-Elektronenbeugung	la diffraction électronique à faisceau fin
MODF	MisOrientation Distribution Function	die MODF, MOVF: die Missorientierungs-Verteilungsfunktion	MODF
	nano-beam diffraction	die Feinststrahl-Beugung	la diffraction par nanofaisceaux
	normalization of data	das Normieren von Daten	la normalisation des données
OCF	Orientation Correlation Function	OCF, die Orientierungs-Korrelations-Funktion	OCF
ODF	Orientation Density Function, Orientation Distribution Function (definition: $dV(g)/V = f(g) dg$)	die ODF, OVf: die Orientierungs-Dichtefunktion, Orientierungs-Verteilungsfunktion	FDO : la Fonction de Densité d'Orientations f(g)
OIM TM	OIM TM is a registered trademark for an EBSD system	OIM TM	OIM TM
OM	Orientation Mapping, Orientation Microscopy	OM (= ACOM), die Orientierungs-Mikroskopie, Orientierungs-Kartographie	OM (= ACOM)
	Pendel loesung: In two-beam dynamical diffraction the energy is periodically swinging like a "pendulum" from one beam to the other at path lengths of half the extinction distance. Thus, the intensity of the diffracted wave is not proportional to the scattering amplitude of the reflection, but periodically changes with local specimen thickness.	die Pendellösung	
	pixelated detector: digital 2D image detector	der Pixeldetektor: digitaler 2D-Bilddetektor	détecteur pixellisé : détecteur numérique d'images 2D
	phosphor screen, fluorescent screen emits light under the impact of electrons and thus makes the spatial image of electron density visible.	der Leuchtschirm	l'écran phosphorent, l'écran fluorescent
PF	(direct, standard) Pole Figure : A pole figure hkl is the density of the poles $\{hkl\}$, often graphically represented in stereographic or in Lambert projection.	die (normale) Polfigur, PF	PF, la figure de pôles (directe)
PF map	PF constructed by marking the individual grain orientations (in color) on the reference sphere or on the Wulff's net, i.e. the standard projection of the reference sphere.	die Polfigur-Kartographie, Richtungs-Kartographie	la cartographie de la figure du pôle, la cartographie directionnelle
PB	A Phase Boundary is the interface between	die Phasengrenze	Le Joint de phases

	two crystals of different crystal structure		
	point detector: 1D detector	der Punktdetektor, 1D-Detektor	
PQ	Pattern Quality: a measure of the crispness of the BKP and an indication of the perfectness of the diffracting crystal volume	PQ, die Pattern Quality	PQ
	Preferred orientations, ideal orientations	die Vorzugsorientierungen, Ideallagen	les orientations préférées, les positions idéales
RT	Radon Transform(ation): an image processing and analysis routine used to quantify <i>gray-tone features</i> in an image; in EBSD the tool is to locate positions of Kikuchi bands in the BKP	RT, die Radon-Transformation	la transformation de Radon
RHEED	Reflection High Energy Electron Diffraction, a special case of BKD, in particular at steep to grazing beam incidence	die (Hochenergie-)Reflexions-Elektronenbeugung, streifende Elektronenbeugung	RHEED, la diffraction à incidence presque rasante du faisceau primaire
Rodrigues map	COM using the Rodrigues vector as parameters for color coding	die Rodrigues-Kartographie	Rodrigues Map
SAD	Selected Area electron Diffraction: Electron diffraction in the TEM using a selector aperture to limit the sampled area	die Feinbereichs-Elektronenbeugung, SAD	SAD, La diffraction en faisceau parallèle sur une zone sélectionnée
SE	Secondary Electrons, by definition have an energy < 50 eV	die Sekundärelektronen, SE	les électrons secondaires
	Skeleton line	die Skelett-Linie	
SEM	Scanning Electron Microscope / Microscopy	das REM, das Raster-Elektronen-Mikroskop/ die -Mikroskopie	MEB : Microscope électronique à balayage
Σ value	reciprocal value of the fraction of the coincident lattice sites of two superimposed crystal lattices	der Σ Wert	la valeur de Σ
	stereology is the science that relates three-dimensional structure to two-dimensional cross sections of materials.	die Stereologie	la stéréologie
	Stereographic projection (an angle preserving projection)	die Stereographische Projektion (winkeltreu)	
t-EBSD, t-EFSD	t-EBSD, t-EFSD : a TKD system on thin samples transparent to electrons in the SEM	t-EBSD, t-EFSD	t-EBSD, t-EFSD
TEM	Transmission Electron Microscope / Microscopy	das TEM, das Transmissions- / Durchstrahlungs-Elektronen-Mikroskop, die Durchstrahlungs-Mikroskopie	MET : Microscope électronique à transmission
	(crystallographic) texture: The statistics of the preferential orientations of the grains in a specimen, the random distribution is usually included.	die (kristallographische, Kristall-) Textur	la texture (cristallographique)
TKD / TKP	Transmission Kikuchi Diffraction / Pattern	TKD, TKP, die Transmissions-Kikuchi-Beugung / das Transmissions-Diagramm	TKD / TKP : La diffraction de Kikuchi en transmission
	A twin(-crystal) or macle is an oriented arrangement of several identical crystals, which are connected by a point group symmetry operation.	der Zwilling	la macle
	umweg anregung: Two or more diffractions excite a kinematically forbidden reflection due to a screw axis or a glide plane.	die Umweganregung	umweganregung, l'excitation „umweg“
	Wehnelt grid	der Wehneltzylinder	le cylindre de Wehnelt, l'électrode de Wehnelt
XRD	X-Ray Diffraction	die Röntgenbeugung, XRD	la diffraction de rayons X
XRSA	X-Ray Residual Stress Analysis	die röntgenographische Eigenspannungs-Analyse	l'analyse des contraintes résiduelles par rayons X
XSA	X-Ray Scanning Apparatus	RRA, die Röntgen-Raster-Apparatur	l'appareil de balayage à rayons X
	Young fringes: Diffraction fringes in the double slit experiment	die (Youngschen) Beugungsstreifen	les lignes de diffraction de Young
	Young's modulus	der Elastizitätsmodul, der E-Modul	le module d'élasticité E, le module de Young
	zone axis: A crystallographic direction with high atomic occupancy density	die Zonenachse	l'axe de zone

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