

## Phonons and plasmons in ZnO-based alloy and doped ZnO thin films studied by infrared spectroscopic ellipsometry and Raman scattering spectroscopy

By Carsten Bundesmann

Shaker Verlag Jan 2006, 2006. Taschenbuch. Book Condition: Neu. 210x149x12 mm. Neuware - ZnO and ZnO-based semiconductors are of physical and technological interest und currently focus of intensive research activities. The reason for the renewed interest is that ZnO-based materials are potential candidates for UV-optoelectronic (light emitting diodes, laser diodes, detectors) or spintronic devices (spin transistors or magnetic memory devices). Essential for the performance of the above addressed materials is the knowledge of fundamental properties concerning the incorporation of the alloying and doping elements. The focus of the present work is the comprehensive study of lattice (phonon) and free charge carrier (plasmon) properties of ZnO-based alloy and doped ZnO thin films, and subsequent evaluation of strain, composition, and dopant influence. The experiments are done by combination of infrared spectroscopic ellipsometry (IRSE) and Raman scattering spectroscopy. The objects of the investigations are single-crystalline (Mg, Cd, Mn, Fe, Co, Ni, Cu)ZnO-alloy and (N, Li, P, Sb, Ga, Al)-doped ZnO thin films on silicon, glass, and polyimide foil, and commercially available ZnO bulk single crystals are studied. Starting from undoped ZnO thin films and ZnO bulk single crystals...



## Reviews

This book is really gripping and interesting. Of course, it is actually perform, still an interesting and amazing literature. You will not truly feel monotony at whenever you want of your time (that's what catalogues are for concerning when you request me). -- Claud Schaden

Good e book and helpful one. It is really basic but excitement from the 50 % of your pdf. Your way of life span is going to be enhance when you comprehensive looking at this pdf. -- Novella Maggio

## **Relevant Kindle Books**

٨

The Kid Friendly ADHD and Autism Cookbook The Ultimate Guide to the Gluten Free Casein Free Diet by Pamela J Compart and Dana Laake 2006 Hardcover

Book Condition: Brand New. Book Condition: Brand New.

	$\geq$
Å	•

Why Is Mom So Mad?: A Book about Ptsd and Military Families

Tall Tale Press, United States, 2015. Paperback. Book Condition: New. 216 x 216 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. The children s issues picture book Why Is Mom So Mad? is a story for children in military...

کم

The Trouble with Trucks: First Reading Book for 3 to 5 Year Olds

Anness Publishing. Paperback. Book Condition: new. BRAND NEW, The Trouble with Trucks: First Reading Book for 3 to 5 Year Olds, Nicola Baxter, Geoff Ball, This is a super-size first reading book for 3-5 year olds, with an engaging story, colourful pictures...

لحر

Everything The Everything Baby Names Book Pick the Perfect Name for Your Baby by June Rifkin 2006 Paperback Book Condition: Brand New. Book Condition: Brand New.

2

Klara the Cow Who Knows How to Bow (Fun Rhyming Picture Book/Bedtime Story with Farm Animals about Friendships, Being Special and Loved. Ages 2-8) (Friendship Series Book 1)

Createspace, United States, 2015. Paperback. Book Condition: New. Apoorva Dingar (illustrator). Large Print. 214 x 149 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Klara is a little different from the other cows, because she has a very special...

لحر

## Where Is My Mommy?: Children s Book

Createspace, United States, 2013. Paperback. Book Condition: New. 279 x 216 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. This children s book is wonderfully illustrated. It has an awesome plot to draw the reader into the story. This...