1. Record Nr. UNINA9910137100903321

Autore	Enrico Cherubini
Titolo	The CA3 region of the hippocampus : how is it? what is it for? how does it do it? / / edited by Enrico Cherubini and Richard Miles
Pubbl/distr/stampa	Frontiers Media SA, 2015 [Lausanne, Switzerland] : , : Frontiers Media SA, , [2015] ©2015
Descrizione fisica	1 online resource (165 pages) : illustrations (chiefly colour); digital file (s)
Collana	Frontiers Research Topics
Disciplina	612.825
Soggetti	Hippocampus (Brain) Hippocampus (Brain) - Physiology Neurobiology Neurosciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	The CA3 hippocampal region receives information from the entorhinal cortex either directly from the perforant path or indirectly from the dentate gyrus via the mossy fibers (MFs). According to their specific targets (principal/mossy cells or interneurons), MFs terminate with large boutons or small filopodial extensions, respectively. MF-CA3 synapses are characterized by a low probability of release and pronounced frequency-dependent facilitation. In addition MF terminals are endowed with mGluRs that regulate their own release. We will describe the intrinsic membrane properties of pyramidal cells, which can sometimes fire in bursts, together with the geometry of their dendritic arborization. The single layer of pyramidal cells is quite distinct from the six-layered neocortical arrangement. The resulting aligned dendrites provides the substrate for laminated excitatory inputs. They also underlie a precise, diversity of inhibitory control which we will also describe in detail. The CA3 region has an especially rich internal connectivity, with recurrent excitatory and inhibitory loops.

	In recent years both in vivo and in vitro studies have allowed to better understand functional properties of the CA3 auto-associative network and its role in information processing. This circuit is implicated in encoding spatial representations and episodic memories. It generates physiological population synchronies, including gamma, theta and sharp-waves that are presumed to associate firing in selected assemblies of cells in different behavioral conditions. The CA3 region is susceptible to neurodegeneration during aging and after stresses such as infection or injury. Loss of some CA3 neurones has striking effects on mossy fiber inputs and can facilitate the generation of pathologic synchrony within the CA3 micro-circuit. The aim of this special topic is to bring together experts on the cellular and molecular mechanisms regulating the wiring properties of the CA3 hippocampal microcircuit in both physiological and pathological conditions, synaptic plasticity, behavior and cognition. We will particularly emphasize the dual glutamatergic and GABAergic phenotype of MF-CA3 synapses at early developmental stages and the steps that regulate the integration of newly generated neurons into the adult dentate gyrus-CA3 circuit.

2.

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Titolo	Electromagnetic nondestructive evaluation (XVI) / / edited by Joao M.A. Rebello, Federal University of Rio de Janeiro, Brazil, Fumio Kojima, Kobe University, Japan and Tomasz Chady, West Pomeranian University of Technology, Szczecin, Poland
Pubbl/distr/stampa	Amsterdam : , : IOS Press, , [2014] ©2014
ISBN	1-61499-354-8
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Collana	Studies in applied electromagnetics and mechanics ; ; volume 38
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Soggetti	Nondestructive testing Eddy current testing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.

Nota di contenuto

""Title Page""; ""Preface""; ""Conference Organization""; ""List of Participants""; ""Contents""; ""Advanced Sensors""; ""Reliability Assessment of EMAT-NDE System for Pipe Wall Thinning Management""; ""Evaluation of Advanced Sensor Types Under Harmonic Excitation in ECT""; ""The High-Resolution Magnetic Camera: A Novel Sensor for Eddy Current Testing""; ""Hysteresis Characteristic and Repeat Accuracy of Magnetic Type Tactile Sensor""; ""Magnetic Field Sensor Utilizing Fiber Bragg Grating""; ""Analytical and Numerical Modeling""
""Electromagnetic Inverse Analysis of Inclined Defect for Ferromagnetic Structural Materials""""""Numerical Models for Composite Materials in E-NDT""; ""Uncertainties of MFL Signal Inversion and Worst-Case Defect Depth Estimation Using a Numerical Model ""; ""Lorentz Force Eddy Current Testing - Model Experiments and Numerical Calculations for Deep Lying Defects""; ""Noniterative Methods for Real Time Imaging of Conducting Materials""; ""Three-Dimensional Numerical Investigations of Lorentz Force Eddy Current Testing""
""Large Scale 3D FEM Electromagnetic Simulations and Validations for FBR Steam Generator Tubes""""""ECT Simulation of Complex Narrow Cracks in Planar Multi-Layered Structures""; ""Numerical Modelling of Eddy-Current Testing in Tubes with Non-Canonical Wall Profile Using Modal Description of the Sources""; ""Systems and Techniques for Electromagnetic NDE""; ""Using the Barkhausen Noise Frequency Spectrum for Case Depth Estimates""; ""Electromagnetic NDT System for Inspection of Train Hollow Axles""; ""Artificial Neural Networks and Fuzzy Logic in Nondestructive Evaluation""
""Quantitative Evaluation of Dielectric Medium Arising in Cable Degradation Using Microwave Guided Measurement System""""""
Automatic Checking of Forging Press Tool Wear Through 3D Inspection""; ""High Lift-Off Stress Measurement Using Electromagnetic Acoustic Resonance""; ""A Modified Approach to Accurate Crack Depth Estimation in ACPD Technique""; ""Eddy-Current Interaction Between a Probe Coil and a Conducting Plate with a Cylindrical Borehole""; ""Time Series Data Mining in Eddy Current Nondestructive Evaluation; Application to Nuclear Fuel Cladding Examination""
""Characterization of Materials and NDE of Cracks""""""Advances in Electromagnetic NDE Techniques for Materials Evaluation""; ""EM Material Characterization of Conductor Backed Media Using a NDE Microstrip Probe""; ""Radiographic Inspection of Composite Materials""; ""Characterization of Surface Cracks Through the Local Magnetic Field Induced by Eddy Currents""; ""Real-Time Monitoring of Crack Growth Behaviour During Impact and Compact Tension Test with Non-Destructive Testing""
""Eddy Current Measurements of Electrical Conductivity in Specimens of Zircaloy-4 with Different Hydrogen Concentrations""

Sommario/riassunto

Electromagnetic Nondestructive Evaluation (ENDE) is the process of inducing electric currents, magnetic fields or both within a test object to assess its condition by observing the electromagnetic response. An important tool in fields as diverse as engineering, medicine and art, it does not permanently alter the object being tested, thus proving invaluable for product evaluation, troubleshooting and research. This book presents the proceedings of the 17th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE), held in Rio de Janeiro, Brazil, in July 2012. ENDE workshop is

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Titolo	China aktuell / / Institut für Asienkunde
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Descrizione fisica	1 online resource
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Soggetti	Bibliographies Mensuels Politique Politics and government Periodicals. China Politics and government Periodicals Chine Hong Kong Taiwan China
Lingua di pubblicazione	Tedesco
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Livello bibliografico	Periodico