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Nota di contenuto	Introduction -- Fundamentals of Mechanism Design -- Recall-Based Spectrum Auction Mechanism -- Two-Stage Spectrum Sharing Mechanism -- Online Spectrum Allocation Mechanism -- Conclusion and Future Research Directions.
Sommario/riassunto	This brief focuses on the current research on mechanism design for dynamic spectrum sharing in cognitive radio (CR) networks. Along with a review of CR architectures and characteristics, this brief presents the motivations, significances and unique challenges of implementing algorithmic mechanism design for encouraging both primary spectrum owners and secondary spectrum users to participate in dynamic spectrum sharing. The brief then focuses on recent advances in mechanism design in CR networks. With an emphasis on dealing with the uncertain spectrum availabilities, mechanisms based on spectrum recall, two-stage spectrum sharing and online spectrum allocation are introduced with the support of theoretic analyses and numerical illustrations. The brief concludes with a discussion of potential research directions and interests, which will motivate further studies on

mechanism design for wireless communications. This brief is concise and approachable for researchers, professionals and advanced-level students in wireless communications and networks.