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# Strategies in liquid-phase chemiluminescence and their applications in bioassay

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## Highlights

- The progress of liquid-phase chemiluminescence during the last 2 years.
- New strategies for improving the chemiluminescence technique.
- Applications in biological and clinical filed.
- Discussion of some critical challenges and prospects.

**ABSTRACT** In this review, we mainly focus on the progress of liquid-phase chemiluminescence (CL) during the past 2 years (January 2014 to January 2016). In this period, numerous papers and review articles has concentrated on improvement of the CL technique in terms of sensitivity, selectivity, accuracy, and quantum efficiency. In this regard, some strategies were considered, which mostly implicate utilization of nanomaterials, special materials and chemicals; synthesis of new chemical compounds; and development of new methodologies. Besides these strategies, the applications of CL in biosensing and bioimaging were also summarized in the review. Finally, some critical challenges and prospects in this field were discussed.

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