

File ID 197368
Filename Preface

SOURCE (OR PART OF THE FOLLOWING SOURCE):

Type Dissertation
Title Evaluation of Marginal and internal adaptation of adhesive class II restorations, in vitro fatigue tests
Author D.L. Dietschi
Faculty Faculty of Dentistry
Year 2003
Pages 163

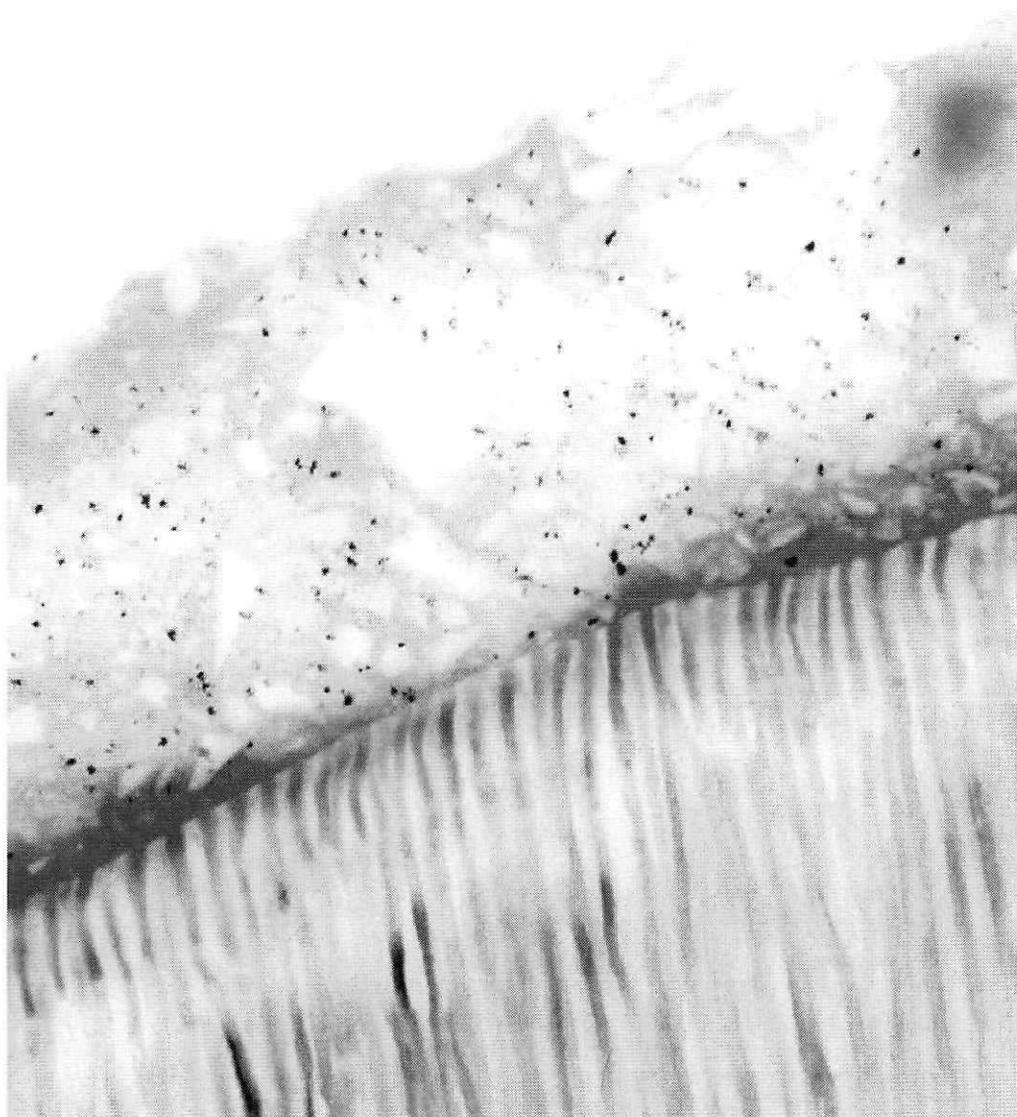
FULL BIBLIOGRAPHIC DETAILS:

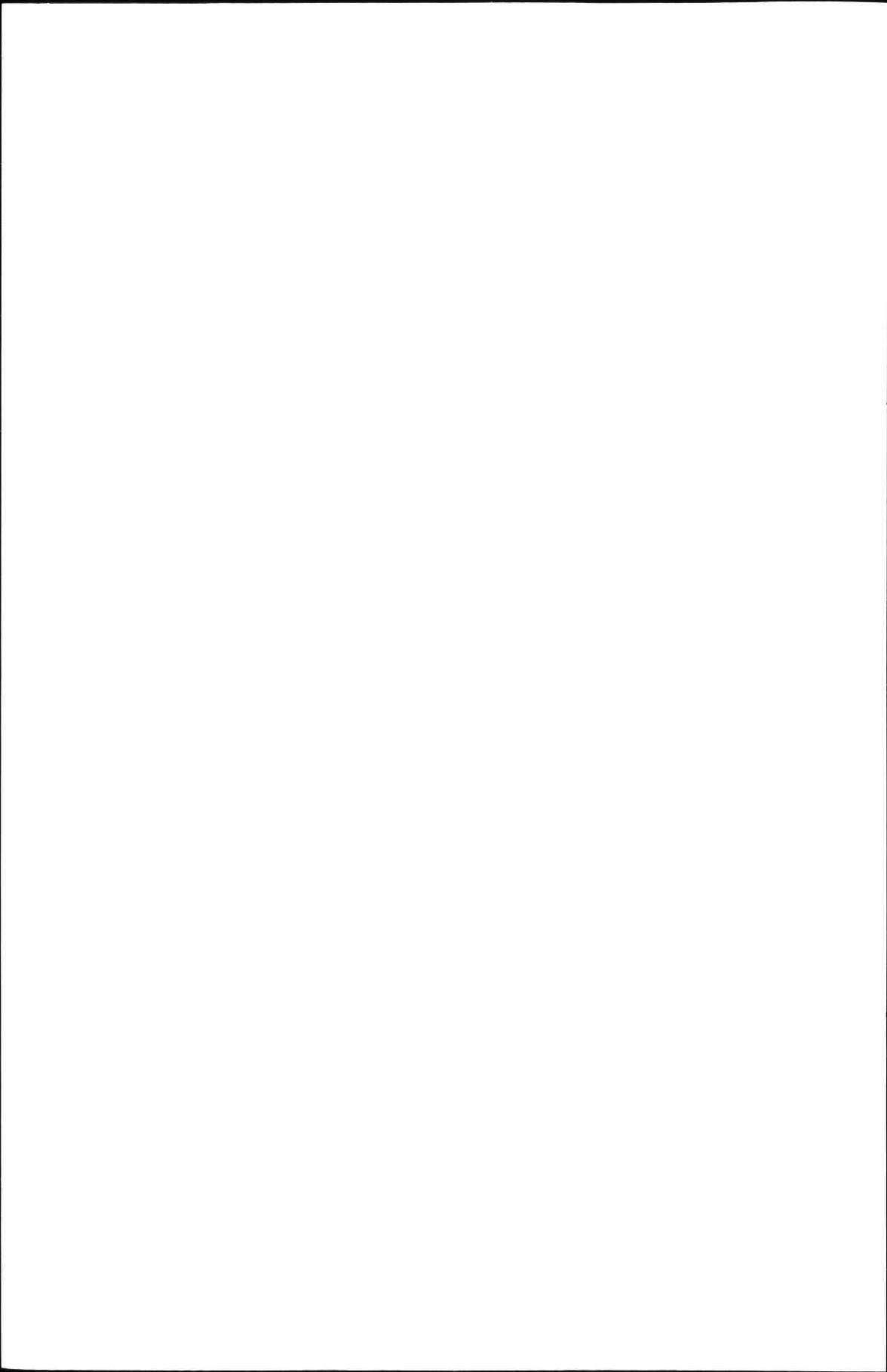
<http://dare.uva.nl/record/116827>

Copyright

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use.

Preface





Many dentists are still reluctant to use tooth coloured materials in posterior teeth, either simply because of their past mediocre reputation or because of the too many available restorative techniques and confusing concepts, which make their successful application doubtful. While catastrophic failures rarely occurred, the insufficient wear resistance, poor mechanical properties and rapid marginal degradation of former composite generations were responsible for their rather short-term success. Bonded ceramic restorations were regarded as well as complicated and unreasonably sophisticated; insufficient knowledge about these techniques and the lack of precise clinical guidelines actually resulted in frequent mechanical failures.

Bio-integration: Adhesion as the key to success

The likely reason of the repetitive failures encountered so far with a large number of materials applied to dentistry, including some tooth-coloured ones, was the lack of bio-integration of the restoration with dental tissues. In order to fulfil the basic requirements of a high-quality dental restoration, which are – the biological protection of the pulpo-dentinal complex – the preservation of the tooth function and – an optimal aesthetic integration, adhesion certainly was a prerequisite. Although being of common sense, this simple statement was for long a dream for scientists and clinicians. The present status of adhesive restorations is actually the cumulative result of researches conducted in many fields, including material engineering, biological interactions with dental restorative materials and tooth biomechanics. What remains, even today, a real challenge is to ensure the long-term cohesion and biological seal between the tooth and the restoration, due the various and severe strains of the buccal environment. Therefore, the tooth-restoration interface was here our centre of interest.

The purpose of the present work was to evaluate several adhesive techniques and tooth-coloured materials to be used in class II restorations. Emphasis was placed on clinically relevant aspects of the restorative methods under evaluation, in order to help the dentist making the best therapeutic decision, according to each specific clinical situation.

