

도재용 Ni-Cr 합금표면의 열처리후 원소성분 변화

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Abstract

Surface Elemental change of dental Ni-Cr Alloy for Porcelain after Heat Treatment

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This study was carried out by observing to the conditions of an oxide on the surface of alloy according to the conditions of its heat treatment and analysing the change in composition on its surface. The result of this study is summarized as follows.

1. It was shown that the higher the more the generated metal oxide while the higher the temperature of heat treatment
2. The metal oxide was manily composed of Ni and Cr oxides.
3. The Ni composition indicated reduction while the higher the heat treatment in vaccum condition
4. The Cr composition indicated increase while the higher the heat treatment in vaccum condition

제 | 장. 서 론

^{1, 2)}

B.Weinstein

1958

Abraham

³⁾

가

가

10

(D).

4, 5)

Ni-Cr
가

나. 실험방법
1) A, B, C, D
(AMRY INC., U.S.A) EDAX

가

가

6, 7, 8)

가

van der waals force

5, 7, 9)

Sn In

10, 11)

제 II 장. 실험재료 및 방법

가. 실험재료

- 1) Durabond(Matech INC., U.S.A) 1.5mm
× 10mm × 10mm
(Ney-co) 600grit Sic
Paper(Rhino brand) Finishing (A).
- 2) A 1200 10
28" (B).
- 3) A 1200
75 1850
- 4) 10 (C).
A 1200
75 1850

제 III 장. 결과 및 고찰

fig. 1-a fig. 4-a
fig. 1-b fig. 4-b X-ray

fig. 1-a
fig. 3-a fig. 4-a 가
fibrous

fig. 1-a fig. 2-a
가 fig. 3-a fig. 4-a

fig. 2-a
가

fig. 1-b
X-ray
Ni Cr fig. 2-b
Cr

가
fig. 3-b fig. 2-b Cr
가 Mo 가

Cr
Ni, Cr, Mo
가 Cr 가 Ni
1200
Mo Ni Cr

제 IV 장. 결 론

- 1) 가 가
- 2) Ni Cr
- 3) Ni 가
- 가
- 4) Cr 가
- 가

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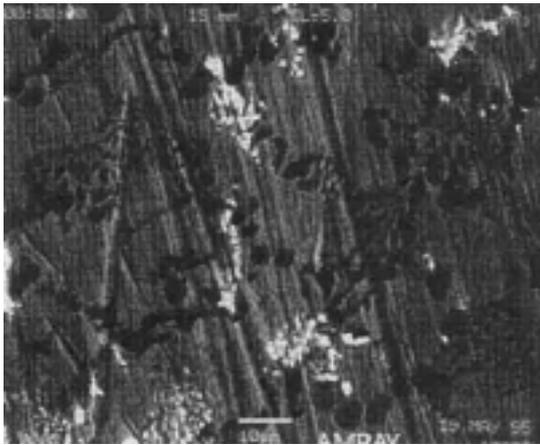


Fig. 1-a. Scanning electron microphotograph

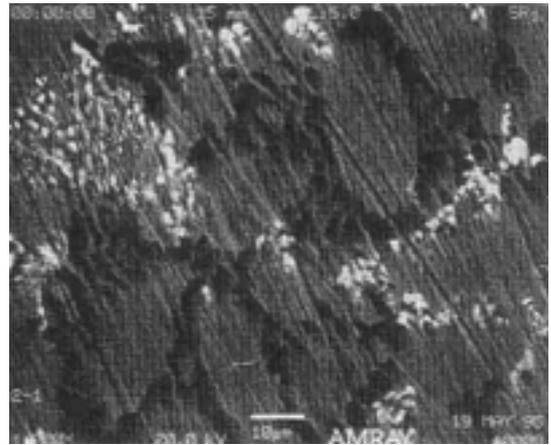


Fig. 2-a. Scanning electron microphotograph

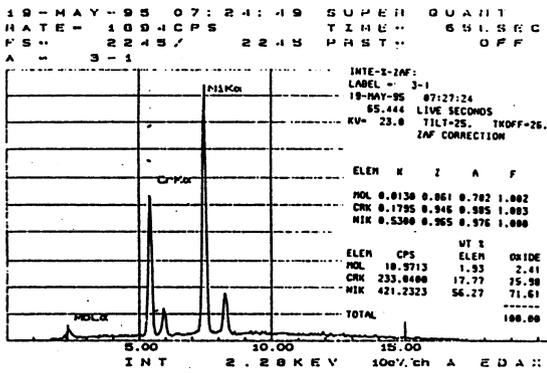


Fig. 1-b. Edax line scan

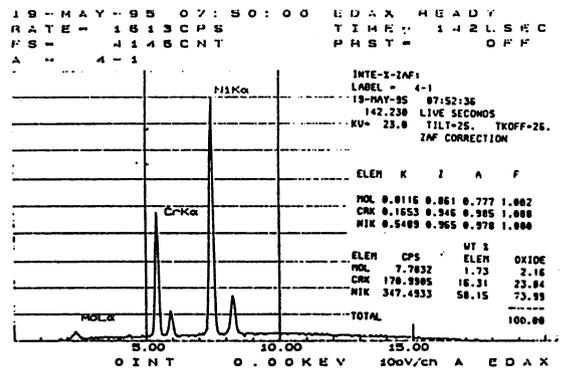


Fig. 2-b. Edax line scan

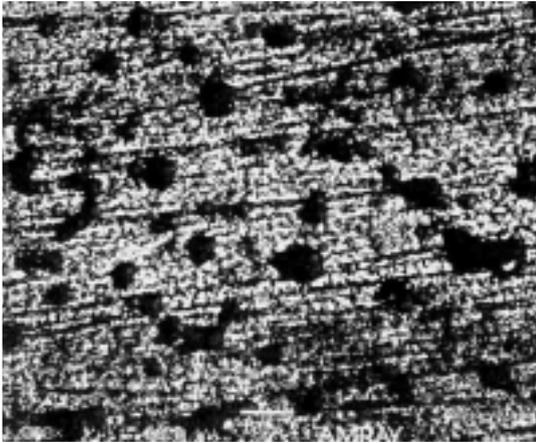


Fig. 3-a. Scanning electron microphotograph

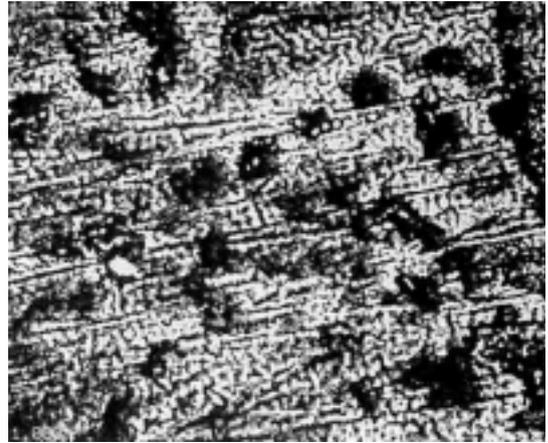


Fig. 4-a. Scanning electron microphotograph

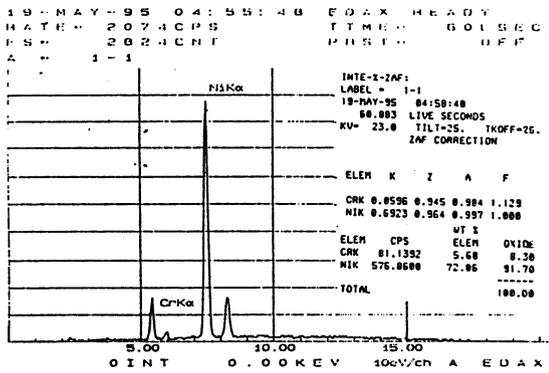


Fig. 3-b. Edax line scan

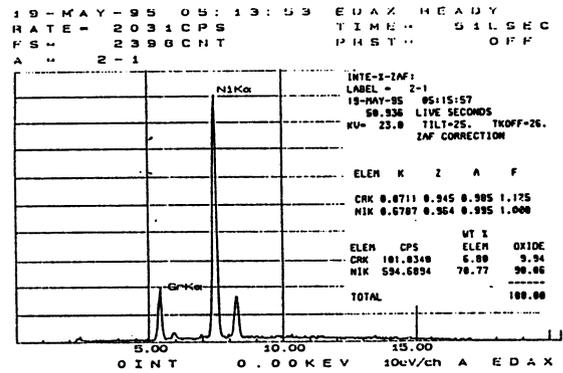


Fig. 4-b. Edax line scan