

## DIPPING TONES IN MULTI-REGISTER AND FOUR-LEVEL MODEL

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### ABSTRACT

This paper classifies dipping tones in the framework of the Multi-Register and Four-Level Model, using new, firsthand acoustic data. Seven dipping types are identified. Four of them are produced in normal clear voice and affiliated with the Modal Register: (1) Central Dipping, typologically transcribed as /323/, (2) Back Dipping /523/, (3) Front Dipping /324/, and (4) Double Circumflex /4343/. The remaining three are produced with non-clear voice qualities: (5) Breathy Dipping /213/ and (6) Creaky Dipping /202/ in the Lower Register, and (7) Discontinuous Fortis Dipping /405/ in the Upper Register. Each of the seven dipping tones contrasts with one or another with four distinctive features [ $\pm$  RgM,  $\pm$ RgL,  $\pm$ H<sub>front</sub>,  $\pm$ H<sub>back</sub>].


### KEYWORDS

**Tone Typology Tonotype Dipping Double Circumflex**

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### 分域四度制中的凹调类型

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#### 摘要

本文采用一手材料在分域四度框架中对凹调进行类型学分类，一共辨识出七种凹调。其中四种为常域清冽声凹调：(1) 央凹型，代码为 /323/，(2) 后凹型 /523/，(3) 前凹型 /324/，(4) 两折型 /4343/。另外三种凹调属于非清冽声声质：(5) 下域的气声凹型 /213/，(6) 下域的嘎裂声凹型 /202/，(7) 上域的张裂声凹型 /405/。本文使用四对区别特征  $[\pm RgM, \pm RgL, \pm H_{front}, \pm H_{back}]$  来刻画这七种凹调。

#### 关键词

声调 类型学 调类 凹调 两折调