AeditoriyeL IMPHAL, WEDNESDAY, JUNE 29, 2022 \bAKspK, IZkxg 30 eg paNb, maliya kuMsiZ 3420 obT\lE mkEwkB 2 HUEIYEN LANPAO

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huIyeN laNpaU
\bAKspK, juN 29, 2022, IMfaL
14 sub chi, 073 sub msiZ

ꯉꯝꯈꯩꯒꯤ ꯋꯥꯊꯣꯛ
ꯕꯤ ꯖꯦ ꯄꯤꯒꯤ ꯃꯇꯝꯗ ꯈꯛꯇ ꯊꯣꯔꯛꯄ꯭ꯔ
ꯃꯅꯤꯄꯨꯔ ꯑꯃꯁꯨꯡ ꯃ꯭ꯌꯥꯟꯃꯥꯔꯒ ꯇꯥꯏꯅꯕ ꯂꯩꯕꯥꯛꯁꯤꯒꯤ ꯉꯝꯈꯩ ꯄꯔꯤꯡꯒꯤ
ꯕꯣꯔꯗꯔ ꯄꯤꯜꯂꯔꯁꯤꯡ ꯑꯃꯁꯨꯡ ꯐꯦꯟꯁꯤꯡ ꯈꯥꯖꯤꯜꯂꯛꯄꯒꯤ ꯃꯇꯥꯡꯗ
ꯊꯣꯔꯛꯂꯤꯕ ꯋꯥꯊꯣꯛꯁꯤꯡꯁꯤꯒꯤ ꯃꯇꯥꯡꯗ ꯑꯣꯄꯣꯖꯤꯁꯟ ꯀꯣꯡꯒ꯭ꯔꯦꯁꯅꯁꯨ
ꯑꯀꯟꯕ ꯊꯕꯛ ꯂꯧꯈꯠꯂꯛꯂꯦ꯫ ꯆꯌꯦꯠꯅꯔꯤꯕ ꯉꯝꯈꯩ ꯌꯨꯝꯕꯤꯁꯤꯡꯒꯤ ꯃꯅꯥꯛ
ꯇꯝꯅ ꯁꯛꯇꯤꯃꯥꯟ ꯇꯣꯡꯂꯒ ꯆꯪꯁꯤꯜꯂꯨꯔꯦ꯫ ꯌꯨꯝꯕꯤ ꯃꯈꯣꯡꯗ ꯂꯦꯞꯇꯨꯅ ꯃꯔꯝ
ꯆꯥꯕ ꯗꯤꯃꯥꯟꯗ ꯑꯃꯁꯨꯡ ꯋꯥꯐꯝꯁꯤꯡ ꯏꯕ ꯕꯦꯟꯅꯔ ꯑꯃꯁꯨꯡ ꯄ꯭ꯂꯦ-ꯀꯥꯔꯗꯁꯤꯡ
ꯄꯥꯏꯗꯨꯅ ꯈꯣꯡꯖꯪ ꯆꯪꯁꯤꯜꯂꯨꯔꯦ꯫ ꯍꯜꯂꯛꯂꯒ ꯏꯝꯐꯥꯜꯗ ꯄꯥꯎꯃꯤꯁꯤꯡꯒ ꯎꯟꯅꯗꯨꯅ
ꯑꯆꯨꯝꯕ ꯑꯁꯦꯡꯕ ꯋꯥꯐꯝꯁꯤꯡ ꯃꯔꯤꯛ-ꯆꯨꯝꯅ ꯄꯥꯎꯗꯝꯈ꯭ꯔꯦ꯫ ꯃꯅꯤꯄꯨꯔ
ꯃꯤꯌꯥꯝꯒꯤ ꯑꯣꯏꯅ ꯌꯥꯝꯅ ꯐꯖꯕ, ꯇꯧꯐꯝ ꯊꯣꯛꯄ, ꯇꯧꯗꯕꯁꯨ ꯌꯥꯗ꯭ꯔꯕ ꯉꯝꯈꯩꯒꯤ
ꯋꯥꯊꯣꯛꯁꯤꯡ ꯑꯁꯤꯒ ꯃꯔꯤ ꯂꯩꯅꯕ ꯊꯕꯛꯁꯤꯡꯅꯤ꯫ ꯄꯣꯂꯤꯇꯤꯀꯦꯜ ꯄꯥꯔꯇꯤ
ꯍꯥꯏꯕꯁꯤꯗꯤ ꯂꯩꯉꯥꯛ ꯄꯥꯏꯔꯕ ꯃꯇꯝꯗꯇ ꯃꯤꯌꯥꯝꯒꯤ ꯊꯕꯛ ꯇꯧꯒꯅꯤ ꯍꯥꯏꯕ
ꯂꯩꯇꯦ꯫ ꯂꯩꯉꯥꯛꯂꯣꯟ ꯈꯨꯠꯄꯥꯏꯅꯗ꯭ꯔꯕꯁꯨ ꯆꯠꯅꯔꯤꯕ ꯂꯩꯉꯥꯛꯂꯣꯟꯒꯤ ꯃꯆꯠ,
ꯃꯑꯣꯡ-ꯃꯇꯧꯁꯤꯡꯕꯨ ꯑꯐꯕ-ꯑꯆꯨꯝꯕ ꯃꯥꯏꯀꯩꯗ ꯄꯨꯔꯛꯅꯕ ꯍꯣꯠꯅꯒꯗꯕꯅꯤ꯫
ꯃꯤꯌꯥꯝꯕꯨ ꯋꯥꯈꯜ ꯇꯥꯍꯟꯒꯗꯕꯅꯤ꯫ ꯃꯇꯝ-ꯃꯇꯝꯒꯤ ꯃꯇꯨꯡꯏꯟꯅ ꯃꯤꯌꯥꯝꯒꯤ
ꯑꯋꯥꯠ-ꯑꯄꯥ ꯂꯩꯍꯟꯗꯅꯕ ꯇꯛꯅꯒꯗꯕꯅꯤ꯫ ꯃꯇꯝ ꯄꯨꯝꯅꯃꯛꯇ ꯃꯤꯌꯥꯝꯒꯤꯗꯃꯛ
ꯂꯦꯞꯀꯗꯕꯅꯤ, ꯃꯤꯌꯥꯝꯒ ꯂꯣꯏꯅꯗꯨꯅ ꯂꯩꯒꯗꯕꯅꯤ꯫ ꯑꯁꯤꯒꯨꯝꯕꯁꯤꯡ ꯑꯁꯤ
ꯇꯧꯔꯕ ꯃꯇꯝꯗꯇ ꯄꯥꯔꯇꯤ ꯑꯗꯨ ꯑꯐꯕ ꯄꯣꯂꯤꯇꯤꯀꯦꯜ ꯄꯥꯔꯇꯤꯅꯤ, ꯄꯥꯔꯇꯤꯗꯨꯒꯤ
ꯂꯨꯆꯤꯡꯕꯁꯤꯡ, ꯊꯧꯃꯤꯁꯤꯡ ꯑꯁꯦꯡꯕ ꯃꯤꯌꯥꯝꯒꯤ ꯊꯧꯒꯜꯂꯣꯏꯁꯤꯡꯅꯤ
ꯍꯥꯏꯒꯗꯧꯔꯤꯕꯅꯤ꯫ ꯄꯋꯥꯔ ꯄꯥꯏꯔꯛꯂꯒꯅ ꯃꯤꯌꯥꯝꯒꯤ ꯆꯥꯎꯈꯠ-ꯊꯧꯔꯥꯡꯁꯤꯡ
ꯍꯛꯊꯦꯡꯅꯅ ꯑꯃꯁꯨꯡ ꯈꯨꯌꯥ-ꯇꯨꯁꯤꯠꯅ ꯇꯧꯕ ꯉꯝꯒꯗꯧꯔꯤꯕꯅꯤ꯫ ꯄꯨꯝꯅꯃꯛꯁꯤ
ꯗꯦꯃꯣꯀ꯭ꯔꯦꯁꯤꯒꯤ ꯂꯩꯉꯥꯛꯂꯣꯟ ꯆꯠꯄ ꯂꯩꯕꯥꯛꯁꯤꯒꯤ ꯄꯤꯛꯄ-ꯆꯥꯎꯕ ꯊꯤꯗꯅ
ꯄꯣꯂꯤꯇꯤꯀꯦꯜ ꯄꯥꯔꯇꯤꯁꯤꯡꯅ ꯆꯦꯟꯒꯗꯕ ꯃꯇꯤꯛ ꯃꯌꯥꯏꯅꯤ꯫

ꯃꯔꯝ ꯄꯨꯝꯅꯃꯛꯁꯤꯡ ꯑꯁꯤꯅ ꯍꯧꯖꯤꯛ ꯊꯣꯔꯛꯂꯤꯕ ꯉꯝꯈꯩꯒ ꯃꯔꯤ
ꯂꯩꯅꯕ ꯊꯧꯗꯣꯛ-ꯋꯥꯊꯣꯛꯁꯤꯡ ꯑꯁꯤꯒꯤ ꯃꯇꯥꯡꯗ ꯀꯣꯡꯒ꯭ꯔꯦꯁꯅ ꯈꯥ-ꯋꯥꯡ
ꯁꯤꯟ-ꯊꯨꯡꯅ ꯆꯦꯟꯗꯨꯅ ꯍꯣꯠꯅꯔꯛꯂꯤꯕꯁꯤ ꯊꯥꯒꯠꯅꯤꯡꯉꯥꯏꯅꯤ꯫ ꯃꯤꯌꯥꯝ ꯍꯨꯞꯅ
ꯁꯔꯨꯛ ꯌꯥꯁꯤꯟꯗꯨꯅ ꯃꯇꯦꯡ ꯄꯥꯡꯁꯤꯟꯗꯨꯅ ꯃꯄꯥꯡꯒꯜ ꯍꯥꯞꯄꯤꯐꯝ ꯊꯣꯛꯏ꯫
ꯑꯗꯨꯕꯨ ꯆꯣꯡꯊꯣꯔꯛꯂꯤꯕ ꯋꯥꯐꯝꯗꯤ ꯕꯣꯔꯗꯔ ꯄꯤꯜꯂꯔ ꯑꯃꯁꯨꯡ ꯐꯦꯟꯁꯤꯡꯒꯤ
ꯋꯥꯊꯣꯛꯁꯤꯕꯨ ꯀꯨꯝꯖꯥ 2017 ꯀꯤ ꯃꯥꯔꯆ 15 ꯗ ꯋꯥꯁꯛ ꯂꯧꯈꯤꯕ ꯕꯤ ꯖꯦ ꯄꯤꯅ
ꯂꯨꯆꯤꯡꯕ ꯂꯩꯉꯥꯛꯅ ꯆꯍꯤ 5 ꯃꯄꯨꯡ ꯐꯥꯅ ꯂꯩꯉꯥꯛ ꯄꯥꯏꯔꯛꯂꯒ ꯍꯟꯗꯛ
ꯑꯃꯨꯛ ꯑꯅꯤꯁꯨꯕ ꯂꯩꯕꯥꯛ ꯋꯥꯌꯦꯜ ꯊꯧꯗꯥꯔꯛꯄ ꯍꯧꯔꯛꯄꯗꯒꯤꯗ ꯊꯣꯔꯛꯄ꯭ꯔ
ꯍꯥꯏꯕꯅꯤ꯫ ꯃꯔꯝꯗꯤ ꯆꯍꯤ 15 ꯊꯪꯅ-ꯊꯪꯅꯅ ꯆꯍꯤ 5/5 ꯒꯤ ꯇꯔꯝ ꯑꯍꯨꯝꯂꯛ
ꯁ꯭ꯇꯦꯠꯁꯤꯒꯤ ꯃꯄꯨ ꯑꯣꯏꯈꯤꯕ ꯀꯣꯡꯒ꯭ꯔꯦꯁꯀꯤ ꯃꯇꯝꯗꯗꯤ ꯊꯣꯛꯈꯤꯗꯕ꯭ꯔ?
ꯕꯤ ꯖꯦ ꯄꯤꯒꯤ ꯂꯩꯉꯥꯛ ꯂꯤꯡꯂꯛꯄꯗꯒꯤꯗ ꯊꯣꯔꯛꯄ꯭ꯔ ꯍꯥꯏꯕꯅꯤ꯫
ꯀꯣꯡꯒ꯭ꯔꯦꯁꯅ ꯂꯩꯕꯥꯛꯀꯤ ꯋꯥꯌꯦꯜ ꯊꯧꯗꯥ ꯄꯥꯏꯔꯤꯉꯩꯗꯒꯤ ꯊꯦꯡꯅꯔꯛꯈꯤꯕ
ꯋꯥꯊꯣꯛ ꯑꯣꯏꯔꯒꯗꯤ ꯃꯇꯝꯗꯨꯗꯗꯤ ꯀꯣꯡꯒ꯭ꯔꯦꯁ ꯄꯥꯔꯇꯤꯅ ꯄꯋꯥꯔꯕꯨ ꯄꯥꯏꯅ-
ꯄꯥꯏꯅ ꯀꯩꯗꯧꯗꯅ ꯂꯩꯍꯧꯒꯦ ꯍꯥꯏꯕꯅꯤ꯫ ꯀꯣꯡꯒ꯭ꯔꯦꯁꯀꯤ ꯃꯇꯝꯗ ꯊꯣꯔꯛꯈꯤꯗꯕ
ꯑꯣꯏꯔꯒꯁꯨ ꯑꯁꯨꯝꯃꯥꯏꯅ ꯊꯣꯔꯛꯀꯅꯤ, ꯊꯣꯔꯛꯄ ꯌꯥꯏ ꯍꯥꯏꯕꯁꯤꯁꯨ ꯆꯍꯤ
15 ꯂꯩꯉꯥꯛꯂꯤꯉꯩꯗ ꯈꯪꯈꯤꯗꯕ꯭ꯔ ꯅꯠꯇ꯭ꯔꯒ ꯅꯣꯡꯃꯇ ꯈꯜꯂꯨꯗꯕ꯭ꯔ ꯍꯥꯏꯕꯒꯤ
ꯋꯥꯅꯤ꯫ ꯊꯣꯔꯛꯈꯤꯗꯕ ꯑꯣꯏꯔꯒꯁꯨ ꯃꯇꯨꯡꯗ ꯊꯣꯔꯛꯇꯅꯕ ꯋꯥꯊꯣꯛ ꯑꯣꯏꯔꯤꯕ
ꯕꯣꯔꯗꯔ ꯄꯤꯜꯂꯔ ꯅꯝꯕꯔ 80, 81 ꯌꯥꯎꯅ ꯉꯝꯈꯩ ꯌꯨꯝꯕꯤ ꯄꯨꯝꯅꯃꯛ ꯑꯆꯨꯝꯕ
ꯑꯁꯦꯡꯕ ꯃꯐꯝꯗ ꯂꯩꯈꯥꯏ ꯇꯥꯅ ꯌꯨꯡꯂꯒ ꯊꯝꯂꯝꯕ ꯌꯥꯗꯕ꯭ꯔ, ꯇꯨꯡꯒꯤ ꯂꯩꯕꯥꯛ
ꯃꯤꯌꯥꯝꯒꯤ ꯃꯤꯔꯣꯜꯒꯤꯗꯃꯛ ꯍꯥꯏꯕꯒꯤ ꯋꯥꯅꯤ꯫ ꯕꯣꯔꯗꯔ ꯄꯤꯜꯂꯔꯁꯤꯡꯒꯤ
ꯋꯥꯊꯣꯛꯇꯨꯃꯛ ꯀꯨꯝ ꯂꯥꯏꯅꯥꯗꯧꯅ ꯅꯥꯔꯛꯂꯝꯗ꯭ꯔꯒꯗꯤ ꯁꯝꯕꯜ ꯈꯥꯕꯒꯤ
ꯋꯥꯊꯣꯛꯁꯤ ꯈꯔꯃꯈꯩꯗ ꯑꯣꯏꯔꯕꯁꯨ ꯄꯤꯛꯁꯤꯜꯂꯝꯂꯣꯏꯗ꯭ꯔ ꯍꯥꯏꯕꯅꯤ꯫
ꯑꯁꯨꯛ ꯂꯨꯈ꯭ꯔꯕ ꯇꯦꯔꯤꯇꯣꯔꯤꯑꯦꯜ ꯏꯟꯇꯤꯒ꯭ꯔꯤꯇꯤꯒꯤꯗꯃꯛꯅꯤ ꯍꯥꯏꯗꯨꯅ
ꯃꯤꯑꯣꯏ ꯀꯌꯥꯒꯤ ꯊꯋꯥꯏ ꯐꯥꯎꯕ ꯃꯥꯡꯈ꯭ꯔꯒ ꯄꯋꯥꯔ ꯄꯥꯏꯔꯤꯉꯩꯗ ꯇꯨꯡꯒꯤ
ꯄꯣꯔꯝ ꯌꯥꯠꯂꯝꯗꯕ ꯀꯔꯤꯒꯤꯅꯣ? ꯋꯥꯊꯣꯛ-ꯂꯥꯟꯊꯣꯛ ꯑꯣꯏꯔꯛꯂꯒ ꯊꯣꯛꯑ-

ꯊꯣꯛꯑꯕ ꯇꯧꯅꯤ, ꯂꯩꯉꯥꯛ ꯄꯥꯏꯗ꯭ꯔꯒꯁꯨ ꯃꯄꯨ ꯑꯣꯏꯔꯤꯕꯗꯨꯗ ꯑꯣꯟꯁꯤꯟꯗꯨꯅ
ꯆꯤꯛꯀꯅꯤ ꯍꯥꯏꯗꯨꯅ ꯊꯔꯦꯛꯅꯗꯨꯅ ꯂꯩꯊꯣꯔꯛꯄꯒꯤ ꯃꯍꯩ ꯑꯣꯏꯔꯣꯏꯗ꯭ꯔ
ꯍꯧꯖꯤꯛ ꯃꯅꯤꯄꯨꯔ ꯄꯨꯝꯁꯥ ꯁꯥꯔꯤꯕꯁꯦ꯫ ꯄꯋꯥꯔ ꯄꯥꯏꯔꯤꯉꯩꯗ ꯃꯤꯌꯥꯝꯒꯤꯗꯃꯛ
ꯀꯗꯥꯏ ꯐꯥꯎꯕ ꯀꯔꯤ-ꯀꯔꯤ ꯇꯧꯔꯝꯕꯒꯦ ꯍꯥꯏꯕꯁꯤ ꯃꯤꯌꯥꯝꯅ ꯁꯤꯠ-ꯅꯥꯟꯅ
SIT! ꯏꯟꯅꯔ-ꯂꯥꯏꯟ ꯄꯔꯃꯤꯠꯀꯤ ꯋꯥꯐꯝ ꯑꯦꯁꯦꯝꯕ꯭ꯂꯤꯗ ꯀꯌꯥꯔꯛ ꯍꯟꯅ
ꯄꯨꯊꯣꯛꯇꯨꯅ ꯈꯟꯅꯈ꯭ꯔꯕꯁꯨ ꯍꯧꯖꯤꯛ ꯂꯩꯔꯤꯕ ꯐꯤꯚꯝꯁꯤ ꯐꯥꯎꯕ ꯂꯩꯍꯜꯂꯝꯕ
ꯉꯝꯕ꯭ꯔ? ꯃꯅꯤꯄꯨꯔꯤ ꯂꯣꯜꯅ ꯀ꯭ꯂꯥꯁꯤꯀꯦꯜ ꯂꯦꯡꯒ꯭ꯋꯦꯖꯒꯤ ꯊꯥꯛꯇ ꯆꯟꯕ,
ꯁꯦꯜꯌꯦꯛꯇ ꯂꯣꯜꯁꯤꯕꯨ ꯌꯥꯎꯍꯟꯕꯒꯤ ꯃꯇꯥꯡꯁꯨ ꯇꯛꯅꯔꯤ, ꯍꯥꯏꯅꯔꯤ
ꯍꯥꯏꯔꯒ ꯃꯇꯝ ꯍꯧꯈꯤꯕ ꯉꯥꯏꯈꯤꯕꯅꯤ ꯍꯥꯏꯕꯗ ꯂꯥꯟꯒꯗ꯭ꯔ? ꯍꯧꯖꯤꯛ ꯍꯧ ꯍꯧ ꯆꯣꯡꯂꯛꯂꯤꯕꯁꯤꯕꯨꯗꯤ ꯐꯠꯇꯦ ꯍꯥꯏꯕ ꯅꯠꯇꯦ, ꯐꯩ ꯑꯗꯨꯕꯨ ꯄꯋꯥꯔ ꯄꯥꯏꯔꯤꯉꯩꯗꯅ
ꯈꯨꯠ ꯇꯨꯡꯕꯨꯟꯅꯗꯨꯅ ꯂꯩꯕꯒꯤ ꯊꯧꯗꯣꯛ ꯊꯣꯛꯈꯤ ꯍꯥꯏꯕꯅꯤ꯫

ꯍꯨꯏꯌꯦꯟ ꯂꯥꯟꯄꯥꯎ ꯂꯤꯇꯔꯦꯔꯤ ꯀ꯭ꯌꯨꯏꯖ - 44
1) "ꯁ꯭ꯋꯔꯒꯗ ꯑꯋꯥꯕ ꯑꯃꯁꯨꯡ ꯅꯨꯡꯉꯥꯏꯕ" ꯍꯥꯏꯕ ꯂꯥꯏꯔꯤꯛꯁꯤ ꯀꯅꯥꯅ ꯏꯕꯅꯣ ꯑꯃꯗꯤ
ꯀꯔꯝꯕ ꯃꯈꯜꯒꯤ ꯂꯥꯏꯔꯤꯛꯅꯣ?

2) "ꯄꯂꯦꯝꯒꯤ ꯈꯣꯝꯂꯥꯡ ꯑꯃ꯭ꯔꯤꯇ ꯊꯛꯂꯤꯉꯩꯗꯒꯤ ꯑꯍꯥꯟꯕ ꯁꯤꯟꯗꯝ ꯑꯣꯏꯗꯨꯅ
ꯅꯋꯥꯒꯤ ꯀꯣꯂꯣꯏ ꯑꯍꯥꯟꯕꯅ ꯄꯂꯦꯝꯒꯤ ꯃꯤꯡꯐꯝ ꯀꯧꯅꯔꯛꯂꯕ ꯑꯩꯈꯣꯏꯒꯤ ꯏꯔꯣꯜ-
-ꯅꯨꯡꯁꯤꯔꯕ, ꯄꯥꯝꯃꯨꯔꯕ ꯏꯃꯥꯔꯣꯜ, ꯃꯩꯇꯩꯂꯣꯜ ꯑꯁꯤꯁꯨ ꯑꯌꯥꯝꯕꯗꯤ ꯂꯩꯔꯥꯡ
ꯏꯉꯦꯟꯂꯩꯒꯤ ꯄꯥꯟꯗꯝ ꯑꯣꯏꯔꯤ꯫" ꯋꯥꯍꯩ ꯄꯔꯦꯡ ꯑꯁꯤ ꯀꯅꯥꯅ ꯏꯔꯝꯕ ꯂꯥꯏꯔꯤꯛꯇ
ꯌꯥꯎꯕ ꯀꯔꯤ ꯋꯥꯔꯦꯡꯗꯒꯤꯅꯣ?
3) "ꯆꯟꯗꯟ ꯄꯥꯝꯕꯤ ꯀꯌꯥ ꯀꯌꯥꯅ,/ꯆꯤꯡ-ꯃꯥꯜ-ꯅꯥꯔꯛ ꯁꯤꯡꯂꯛꯇ,/ꯃꯥꯡ'ꯒꯨꯝ
ꯑꯔꯦꯝꯕ ꯎꯀꯪ ꯑꯣꯏꯗꯨꯅ,/ꯄꯨꯛꯅꯤꯡ ꯂꯩꯀꯣꯜꯒꯤ ꯑꯊꯨꯞꯄꯗ,/ꯊꯥꯔꯤꯕ ꯆꯟꯗꯟ
ꯄꯥꯝꯕꯤꯗꯨ ꯆꯦꯛꯁꯤꯟꯅ,/ꯀꯪꯈ꯭ꯔꯅꯤꯗꯣ ꯑꯔꯦꯝꯕꯗ꯫" ꯁꯩꯔꯦꯡ ꯃꯇꯦꯛ ꯑꯁꯤ ꯀꯕꯤ
ꯃꯅꯥꯅ ꯏꯔꯝꯕ ꯀꯔꯝꯕ ꯁꯩꯔꯦꯡꯗꯒꯤꯅꯣ ꯑꯃꯗꯤ ꯀꯔꯤ ꯂꯥꯏꯔꯤꯛꯇ ꯌꯥꯎꯕꯅꯣ?
4) "ꯀꯥꯎꯁꯤꯡ" ꯍꯥꯏꯕ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤꯒꯤ ꯑꯏꯕ ꯀꯅꯥꯅꯣ, ꯀꯔꯝꯕ ꯃꯈꯜꯒꯤ
ꯂꯥꯏꯔꯤꯛꯅꯣ?
5) "ꯃꯣꯍꯟ ꯗꯥꯁ" ꯍꯥꯏꯕ ꯃꯅꯤꯄꯨꯔꯤ ꯂꯥꯏꯔꯤꯛ ꯑꯁꯤ ꯑꯣꯔꯤꯖꯤꯅꯦꯜ ꯀꯅꯥꯅ ꯏꯕ ꯀꯔꯤ
ꯂꯥꯏꯔꯤꯛꯇꯒꯤ ꯀꯅꯥꯅ ꯃꯅꯤꯄꯨꯔꯤꯗ ꯍꯟꯗꯣꯛꯄꯅꯣ?

ꯃꯊꯛꯇ ꯄꯤꯔꯤꯕ ꯋꯥꯍꯪꯁꯤꯡ ꯑꯁꯤꯒꯤ ꯄꯥꯎꯈꯨꯝ ꯖꯨꯟ 30, ꯁꯒꯣꯜꯁꯦꯟ ꯅꯨꯃꯤꯠꯀꯤ
ꯑꯌꯨꯛ ꯄꯨꯡ 11 ꯐꯥꯎꯕꯒꯤ ꯃꯅꯨꯡꯗ ꯄꯥꯎꯆꯦ ꯑꯁꯤꯒꯤ ꯑꯣꯐꯤꯁꯇ ꯅꯠꯇ꯭ꯔꯒ ꯏ-ꯃꯦꯜ
hueiyenliteraryquiz@gmail.com ꯁꯤꯗ ꯃꯦꯜ ꯑꯣꯏꯅ ꯊꯥꯕꯤꯔꯛꯄ
ꯌꯥꯒꯅꯤ꯫ ꯄꯥꯎꯈꯨꯝ ꯄꯤꯕꯤꯔꯛꯄ/ꯊꯥꯕꯤꯔꯛꯄ ꯃꯇꯝꯗ ꯃꯤꯡ, ꯂꯩꯐꯝ, ꯃꯍꯩꯒꯤ ꯊꯥꯛ ꯑꯃꯁꯨꯡ
ꯀꯟꯇꯦꯛꯠ ꯅꯝꯕꯔ ꯃꯌꯦꯛ ꯁꯦꯡꯅ ꯏꯕꯤꯔꯛꯎ꯫ ꯋꯥꯍꯪ ꯈꯨꯗꯤꯡꯃꯛꯀꯤ ꯄꯥꯎꯈꯨꯝ ꯆꯨꯝꯅ
ꯅꯠꯇ꯭ꯔꯒ ꯃꯁꯤꯡ ꯌꯥꯝꯅ ꯆꯨꯝꯅ ꯄꯤꯕꯤꯔꯛꯄ ꯃꯤꯑꯣꯏꯁꯤꯡ ꯑꯗꯨꯗꯒꯤ ꯗ꯭ꯔꯣ ꯑꯣꯠꯆꯔꯒ
ꯂꯥꯏꯕꯛ ꯐꯕ ꯃꯤꯁꯛ ꯑꯃ ꯈꯟꯖꯒꯅꯤ꯫ ꯂꯣꯏꯅꯅ ꯈꯜꯂꯕ ꯃꯤꯁꯛ ꯑꯗꯨꯗ ꯃꯅꯥ ꯄꯤꯖꯒꯅꯤ꯫

ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯅ ꯄꯨꯔꯛꯄ ꯁꯨꯅꯨꯅꯨꯡꯗꯒꯤ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯁꯨꯡꯕ
(ꯀꯥꯔꯕꯟ ꯅ꯭ꯌꯨꯇ꯭ꯔꯦꯜ ꯀꯪꯀ꯭ꯔꯤꯠꯀꯤ ꯕꯤꯜꯗꯤꯡ ꯁꯥꯕ ꯌꯥꯔꯛꯀꯗꯧꯔꯤ)
ꯁꯥꯏꯟꯁꯀꯤ ꯈꯣꯡꯆꯠ
ꯀꯨꯟꯖꯣ ꯅꯥꯎꯔꯦꯝ
ꯃꯃꯥꯡ ꯆꯌꯣꯜꯒꯤ ꯋꯥꯔꯦꯡꯗꯁꯨ ꯄꯟꯖꯈ꯭ꯔꯦ ꯃꯗꯨꯗꯤ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯁꯨꯡꯕꯒ ꯍꯧꯖꯤꯛ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ
ꯄꯥꯝꯕꯩꯁꯤꯗꯒꯤ ꯊꯥꯗꯣꯔꯛꯄ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗꯅ ꯃꯥꯂꯦꯝꯒꯤ ꯁꯥꯕꯒꯤ ꯆꯥꯡ ꯍꯦꯟꯒꯠꯍꯟꯕ; ꯃꯩꯈꯨ,
ꯎꯐꯨꯜ-ꯋꯥꯏꯐꯨꯜ ꯑꯃꯁꯨꯡ ꯐ꯭ꯌꯨꯝꯁꯤꯡꯅ ꯅꯨꯡꯁꯤꯠꯄꯨ ꯃꯣꯠꯍꯟꯕ; ꯑꯁꯤꯒꯨꯝꯕ ꯈꯨꯗꯣꯡꯆꯥꯗꯕꯁꯤꯡ ꯑꯁꯤꯗꯒꯤ ꯀꯣꯛꯍꯟꯅꯕꯒꯤ ꯅꯧꯅ ꯄꯨꯊꯣꯔꯛꯄ ꯄꯥꯝꯕꯩ ꯑꯃꯒꯤ ꯃꯇꯥꯡꯗ꯫ ꯑꯁꯤꯒꯨꯝꯕ ꯑꯅꯧꯕ ꯄꯥꯝꯕꯩꯁꯤꯡꯒꯤ ꯃꯔꯛꯇ ꯑꯃ ꯑꯣꯏꯔꯤꯕ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯀꯣꯂꯣꯔꯥꯗꯣ ꯕꯣꯜꯗꯔꯅ ꯂꯨꯆꯤꯡꯈꯤꯕ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯃꯅ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯅꯣꯔꯊ ꯀꯔꯣꯂꯥꯏꯟ ꯋꯤꯜꯃꯤꯡꯇꯟ (ꯌꯨ ꯑꯦꯟ ꯁꯤ ꯗꯕ꯭ꯂꯤꯌꯨ) ꯒꯤ ꯑꯜꯒꯥꯜ ꯔꯤꯁꯣꯁꯔꯁ ꯀꯂꯦꯛꯁꯟ ꯑꯃꯁꯨꯡ ꯅꯦꯁꯅꯜ ꯔꯤꯅ꯭ꯌꯨꯑꯦꯕꯜ ꯑꯦꯅꯔꯖꯤ ꯂꯦꯕꯣꯔꯦꯇꯔꯤ (ꯑꯦꯟ ꯑꯥꯔ ꯏ ꯑꯦꯜ) ꯒ ꯂꯣꯏꯅꯅ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯁꯨꯡꯕꯗ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯊꯥꯗꯣꯛꯍꯜꯂꯛꯄꯒꯤ ꯃꯍꯨꯠꯇ ꯅꯨꯡꯁꯤꯠꯇꯒꯤ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯐꯥꯎꯕ ꯂꯧꯁꯤꯟꯕ ꯉꯝꯕ, ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯁꯨꯡꯕꯒꯤ ꯄꯥꯝꯕꯩ ꯑꯃ ꯄꯨꯊꯣꯛꯄ ꯉꯝꯂꯦ ꯍꯥꯏꯔꯤ꯫ ꯃꯈꯣꯏꯒꯤ ꯄꯥꯝꯕꯩꯁꯤꯗ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤ (ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯒꯤ) ꯁꯤꯖꯤꯟꯅꯩ꯫ ꯊꯤꯖꯤꯟꯕꯒꯤ ꯊꯕꯛ ꯑꯁꯤꯒꯤꯗꯃꯛ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ ꯌꯨ ꯑꯦꯁ ꯗꯤꯄꯥꯔꯠꯃꯦꯟꯠ ꯑꯣꯐ ꯑꯦꯅꯔꯖꯤꯒꯤ ꯑꯦꯗꯚꯥꯟꯁꯗ ꯔꯤꯁꯔꯁ ꯄ꯭ꯔꯣꯖꯦꯛꯠꯁ ꯑꯦꯖꯦꯟꯁꯤ-ꯑꯦꯅꯔꯖꯤ (ARPA-E) ꯗꯒꯤ ꯗꯣꯂꯔ ꯃꯤꯂꯤꯌꯟ 3.2 ꯐꯪꯈꯤ꯫ ꯑꯗꯨꯒ HESTIA Program (ꯍꯥꯔꯅꯦꯁꯤꯡ ꯏꯃꯤꯁꯟꯁ ꯏꯟꯇꯨ
ꯁ꯭ꯇ꯭ꯔꯛꯆꯔꯁ ꯇꯦꯀꯤꯡ ꯏꯟꯄꯨꯠꯁ ꯐ꯭ꯔꯣꯝ ꯗ ꯑꯦꯠꯃꯣꯁꯐꯤꯌꯔ)
ꯅ ꯕꯥꯏꯑꯣꯖꯦꯅꯤꯛ ꯂꯥꯏꯝꯁ꯭ꯇꯣꯟ-ꯕꯦꯖꯗ ꯄꯣꯔꯠꯂꯦꯟꯗ ꯁꯤꯃꯦꯟꯠ
ꯄꯨꯊꯣꯛꯄꯒꯤ ꯊꯕꯛ ꯑꯁꯤ ꯍꯦꯟꯅ ꯈꯨꯃꯥꯡ ꯆꯥꯎꯁꯤꯟꯅ ꯄꯥꯏꯈꯠꯅꯕ
ꯑꯗꯨꯒ ꯖꯤꯔꯣ-ꯀꯥꯔꯕꯟ ꯐ꯭ꯌꯨꯆꯔ ꯑꯃ ꯁꯦꯝꯒꯠꯄꯗ ꯃꯇꯦꯡ
ꯑꯣꯏꯅꯕꯒꯤꯗꯃꯛ ꯂꯨꯞ ꯑꯁꯤꯕꯨ ꯈꯟꯒꯠꯈꯤꯕꯅꯤ꯫
ꯈ꯭ꯋꯥꯏꯗꯒꯤ ꯇꯣꯏꯅ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯄꯣꯔꯠꯂꯦꯟꯗ ꯁꯤꯃꯦꯟꯠ
ꯑꯁꯤ ꯁꯨꯡꯅꯕꯒꯤꯗꯃꯛ ꯑꯆꯧ-ꯑꯆꯧꯕ ꯀ꯭ꯋꯥꯔꯤꯁꯤꯡꯗꯒꯤ ꯁꯨꯅꯨꯅꯨꯡ
(ꯂꯥꯏꯝꯁ꯭ꯇꯣꯟ) ꯂꯧꯊꯣꯛꯄ ꯑꯃꯁꯨꯡ ꯌꯥꯝꯅ ꯁꯥꯍꯜꯂꯒ ꯃꯩ ꯊꯥꯕ ꯇꯥꯏ;
ꯊꯧꯑꯣꯡꯁꯤꯗ ꯌꯥꯝꯂꯕ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯊꯥꯗꯣꯔꯛꯏ꯫
ꯑꯁꯤꯒꯨꯝꯕ ꯀ꯭ꯋꯥꯔꯤꯁꯤꯡꯗꯒꯤ ꯈꯪꯂꯤꯕ ꯁꯨꯅꯨꯅꯨꯡꯁꯤꯒꯤ ꯃꯍꯨꯠꯇ
ꯐꯣꯇꯣꯁꯤꯟꯊꯦꯁꯤꯁꯀꯤ ꯄꯥꯝꯕꯩꯅ (ꯁꯃꯨꯗ꯭ꯔꯒꯤ ꯏꯔꯣꯜꯅꯨꯡꯗ
ꯀꯣꯔꯜ ꯍꯥꯏꯅ ꯈꯪꯅꯔꯤꯕ ꯖꯤꯕꯁꯤꯡꯅ ꯐꯣꯇꯣꯁꯤꯟꯊꯦꯁꯤꯁ ꯇꯧꯔꯒ ꯀꯣꯔꯜ ꯔꯤꯐꯁꯤꯡ ꯁꯦꯝꯂꯛꯄꯒꯨꯝꯅ), ꯀꯥꯜꯀꯦꯔꯤꯌꯁ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯒꯤ ꯁ꯭ꯄꯦꯁꯤꯁ ꯈꯔꯕꯨ ꯁꯨꯅꯨꯅꯨꯡ ꯁꯨꯡꯍꯟꯕꯗ ꯁꯤꯖꯤꯟꯅꯕ ꯌꯥꯏ ꯍꯥꯏꯕꯁꯤ ꯈꯪꯂꯛꯈꯤ꯫ ꯐꯣꯇꯣꯁꯤꯟꯊꯦꯁꯤꯁ ꯄꯥꯡꯊꯣꯛꯄꯗ ꯄꯥꯝꯕꯤꯁꯤꯡꯅ ꯅꯨꯡꯁꯤꯠꯇꯒꯤ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯆꯨꯞꯁꯤꯜꯂꯤ꯫ ꯑꯁꯨꯝꯅ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯅ ꯐꯣꯇꯣꯁꯤꯟꯊꯦꯁꯤꯁ ꯇꯧꯅꯕꯒꯤꯗꯃꯛꯇꯁꯨ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯆꯨꯞꯁꯤꯜꯂꯤ꯫ ꯊꯧꯑꯣꯡ ꯑꯁꯤꯅ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯁꯨꯡꯕꯗ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯊꯥꯗꯣꯛꯍꯜꯂꯛꯄꯒꯤ ꯃꯍꯨꯠꯇ ꯅꯨꯡꯁꯤꯠꯇꯒꯤ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯐꯥꯎꯕ ꯆꯨꯞꯁꯤꯟꯗꯨꯅ ꯒ꯭ꯂꯣꯕꯦꯜ ꯋꯥꯔꯃꯤꯡ ꯍꯟꯊꯍꯟꯕꯗ ꯑꯆꯧꯕ ꯊꯧꯗꯥꯡ ꯑꯃꯁꯨ ꯂꯧꯒꯗꯧꯔꯤ ꯍꯥꯏꯅ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ ꯐꯣꯡꯗꯣꯛꯂꯤ꯫
ꯃꯇꯥꯡꯁꯤꯗ ꯄꯟꯕ ꯌꯥꯔꯤꯕ ꯅꯨꯡꯉꯥꯏꯔꯕ ꯋꯥꯐꯝ ꯑꯃꯅ, ꯊꯤꯖꯤꯟꯕꯁꯤꯒꯤ ꯊꯕꯛꯇ ꯃꯄꯨꯡ ꯑꯣꯏꯕ ꯊꯧꯗꯥꯡ ꯂꯧꯈꯤꯕ ꯁꯤꯚꯤꯜ ꯏꯟꯚꯥꯏꯔꯟꯃꯦꯟꯇꯜ ꯑꯦꯟꯗ ꯑꯥꯔꯀꯤꯇꯦꯛꯆꯔꯜ ꯏꯟꯖꯤꯅꯤꯌꯔꯤꯡ ꯑꯃꯁꯨꯡ \ꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯀꯔꯣꯂꯥꯏꯟꯅ
ꯕꯣꯜꯗꯔꯒꯤ ꯑꯦꯁꯣꯁꯤꯑꯦꯠ ꯄ꯭ꯔꯣꯐꯦꯁꯔ
ꯐꯡꯦ Srubar ꯅ ꯄꯥꯝꯕꯤꯁꯤꯡꯕꯨ ꯁꯨꯅꯨꯅꯨꯡ
ꯄꯨꯊꯣꯛꯍꯟꯅꯕꯒꯤ ꯋꯥꯈꯜꯂꯣꯟ ꯑꯁꯤ
ꯀꯨꯝꯖꯥ 2017 ꯇ ꯃꯍꯥꯛꯀꯤ ꯍꯅꯤꯃꯨꯟ
ꯃꯅꯨꯡꯗ ꯊꯥꯏꯂꯦꯟꯗꯒꯤ ꯁꯃꯨꯗ꯭ꯔꯗ
ꯁ꯭ꯅꯣꯔꯀꯜ ꯁꯤꯖꯤꯟꯅꯔꯒ ꯏꯔꯣꯏꯗꯨꯅ
ꯁꯥꯟꯅꯔꯤꯉꯩꯗ ꯂꯥꯛꯈꯤꯕꯅꯤ ꯍꯥꯏꯕ-
ꯁꯤꯅꯤ꯫ ꯃꯇꯝ ꯑꯗꯨꯗ ꯃꯍꯥꯛꯅ
ꯀꯦꯜꯁꯤꯌꯝ ꯀꯥꯔꯕꯅꯦꯠꯅ ꯁꯦꯝꯕ,
ꯃꯇꯝ ꯀꯨꯏꯅ ꯂꯩꯔꯛꯂꯕ ꯀꯣꯔꯜ
ꯔꯤꯐꯁꯤꯡꯒꯤ ꯁꯛꯇꯝꯁꯤꯡꯕꯨ ꯎꯔꯨꯕ-
ꯗꯒꯤ, ꯃꯍꯧꯁꯥꯒꯤ ꯊꯧꯑꯣꯡꯅ
ꯀꯦꯜꯁꯤꯌꯝ ꯀꯥꯔꯕꯅꯦꯠ ꯁꯦꯝꯕ
ꯉꯝꯂꯕꯗꯤ, ꯈꯨꯠꯁꯦꯝꯒꯤ ꯄꯥꯝꯕꯩꯅ
ꯃꯁꯤ ꯁꯨꯡꯕ ꯉꯝꯒꯅꯤ ꯍꯥꯏꯅ ꯈꯜꯂꯛꯈꯤ꯫ ꯀꯦꯜꯁꯤꯌꯝ ꯀꯥꯔꯕꯅꯦꯠ ꯍꯥꯏꯕꯁꯤ ꯁꯨꯅꯨꯅꯨꯡꯗ ꯌꯥꯎꯕ ꯃꯄꯨꯡ ꯑꯣꯏꯔꯤꯕ ꯃꯆꯜ ꯑꯃꯅꯤ꯫
sbAck 2020 xg National Science Foundation CAREER Award WISDjq,

Srubar ꯑꯃꯁꯨꯡ ꯃꯍꯥꯛꯀꯤ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ Coccolithophore ꯕꯨ ꯌꯣꯛꯄꯒꯤ ꯊꯕꯛ ꯄꯥꯏꯈꯠꯄ ꯍꯧꯔꯛꯈꯤ꯫ Coccolithophore ꯍꯥꯏꯕꯁꯤ ꯁꯦꯜ ꯑꯃꯈꯛꯇꯃꯛ ꯌꯥꯎꯕ, ꯁꯃꯨꯗ꯭ꯔꯒꯤ ꯃꯊꯛ ꯊꯪꯕ ꯂꯩꯔꯣꯜꯗ ꯍꯤꯡꯕ, ꯉꯧꯔꯣꯛ ꯉꯧꯕ ꯐꯥꯏꯇꯣꯄ꯭ꯂꯥꯡꯛꯇꯟ (ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤ) ꯃꯈꯜ ꯑꯃꯅꯤ꯫ Coccolithophore ꯁꯤꯡꯒꯤ ꯍꯛꯆꯥꯡꯁꯤꯡꯁꯤ ꯁꯨꯅꯨꯅꯨꯡꯒꯤ ꯃꯥꯏꯀ꯭ꯔꯣꯁꯀꯣꯄꯤꯛ ꯑꯣꯏꯕ ꯀꯨꯌꯣꯝ ꯑꯃꯅ ꯀꯨꯞꯁꯤꯜꯂꯤ꯫
Coccolith ꯍꯥꯏꯅ ꯈꯪꯅꯔꯤꯕ ꯀꯨꯌꯣꯝꯁꯤ ꯀꯥꯔꯒꯤ ꯆꯥꯀꯥꯗ
ꯌꯥꯎꯔꯤꯕ ꯙꯥꯇꯨꯒꯤ ꯁꯔꯨꯛꯁꯤꯡꯕꯨ ꯀꯨꯞꯁꯤꯜꯂꯤꯕ ꯍꯕꯀꯦꯞ
ꯃꯑꯣꯡ ꯃꯥꯜꯂꯤ ꯑꯗꯨꯒ ꯃꯁꯤꯒꯤ ꯗꯥꯏꯑꯃꯤꯇꯔꯅ ꯃꯤꯂꯤꯃꯤꯇꯔ
ꯑꯃꯒꯤ ꯂꯤꯁꯤꯡ ꯊꯣꯛꯄꯒꯤ ꯑꯍꯨꯝꯁꯨꯕ ꯍꯥꯏꯕꯗꯤ ꯃꯤꯂꯤꯃꯤꯇꯔ
0.0003 ꯒꯨꯝꯕ ꯑꯣꯏ꯫ ꯅꯨꯡꯁꯥ ꯃꯉꯥꯜ, ꯁꯃꯨꯗ꯭ꯔꯒꯤ ꯏꯁꯤꯡ
ꯑꯃꯁꯨꯡ ꯏꯁꯤꯡꯗꯨꯗ ꯌꯥꯎꯔꯤꯕ ꯀꯔꯥꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗꯀꯤ
ꯃꯇꯦꯡꯅ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯁꯤꯅ ꯀꯣꯔꯜ ꯔꯤꯐꯁꯤꯡꯗꯒꯤ ꯍꯦꯟꯅ
ꯊꯨꯅ ꯌꯥꯝꯂꯕ ꯀꯦꯜꯁꯤꯌꯝ ꯀꯥꯔꯕꯅꯦꯠꯁꯤꯡ ꯄꯨꯊꯣꯛꯄ ꯉꯝꯃꯤ꯫
Coccolithophore ꯁꯤꯡꯅ ꯁꯃꯨꯗ꯭ꯔꯒꯤ ꯏꯁꯤꯡꯗ ꯑꯁꯨꯛꯀꯤ
ꯃꯇꯤꯛ ꯄꯥꯛ ꯁꯟꯅ ꯁꯟꯗꯣꯛꯇꯨꯅ ꯂꯩ ꯃꯗꯨꯗꯤ ꯃꯈꯣꯏꯁꯤ
ꯁ꯭ꯄꯦꯁꯇꯒꯤ ꯎꯕ ꯉꯝꯃꯤ꯫

ꯑꯀꯟꯕ ꯀꯦꯜꯁꯤꯌꯝ ꯀꯥꯔꯕꯅꯦꯠꯀꯤ ꯀꯨꯌꯣꯝꯅ ꯌꯣꯝꯁꯤꯟꯕ, ꯑꯏꯪꯕ ꯑꯃꯁꯨꯡ ꯑꯁꯥꯕ, ꯊꯨꯝꯍꯤ ꯆꯦꯟꯕ ꯑꯃꯁꯨꯡ ꯊꯨꯝꯍꯤ ꯆꯦꯟꯗꯕ ꯏꯁꯤꯡ ꯑꯅꯤꯃꯛꯇ ꯍꯤꯡꯕ ꯉꯝꯕ, ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯁꯤꯡꯁꯤ ꯈꯨꯠꯁꯦꯝꯒꯤ ꯄꯥꯝꯕꯩꯅ, ꯀꯪꯐꯥꯜ ꯑꯃꯁꯨꯡ ꯁꯃꯨꯗ꯭ꯔꯗ ꯌꯣꯛꯄ ꯌꯥꯏ꯫ ꯂꯨꯞ ꯑꯁꯤꯒꯤ ꯃꯇꯨꯡꯏꯟꯅ, ꯑꯦꯀꯔ ꯃꯤꯂꯤꯌꯟ 1 ꯗꯒꯤꯅ 2 ꯈꯛꯇꯃꯛ ꯑꯣꯏꯕ ꯄꯨꯈ꯭ꯔꯤꯗ ꯌꯣꯛꯄ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯁꯤꯡꯅ ꯌꯨꯅꯥꯏꯇꯦꯗ ꯁ꯭ꯇꯦꯠꯁꯅ ꯗꯔꯀꯥꯔ ꯑꯣꯏꯔꯤꯕ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯄꯨꯝꯅꯃꯛ ꯁꯨꯕ ꯉꯝꯍꯟꯒꯅꯤ꯫ ꯍꯥꯏꯔꯤꯕ ꯄꯨꯈ꯭ꯔꯤꯁꯤꯅ ꯂꯧꯁꯤꯟꯈꯤꯒꯗꯕ ꯂꯝꯒꯤ ꯄꯥꯛ-ꯆꯥꯎꯕꯁꯤ ꯌꯨ ꯑꯦꯁꯀꯤ ꯑꯄꯨꯟꯕ ꯀꯪꯐꯥꯜꯒꯤ 0.5% ꯈꯛꯇꯅꯤ ꯑꯗꯨꯒ ꯆꯨꯖꯥꯛ ꯊꯥꯕꯗ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯂꯝꯒꯤ ꯁꯔꯨꯛꯅ 1% ꯈꯛꯇꯅꯤ ꯍꯥꯏꯅ ꯂꯨꯞ ꯑꯁꯤꯅ ꯐꯣꯡꯗꯣꯛꯂꯤ꯫ ꯃꯇꯥꯡ ꯑꯁꯤꯗ ꯍꯦꯟꯅ ꯄꯨꯛꯅꯤꯡ ꯆꯤꯡꯁꯤꯟꯅꯤꯡꯉꯥꯏ ꯑꯣꯏꯔꯤꯕꯅ, ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯁꯤꯅ ꯐꯪꯍꯟꯕ ꯉꯝꯂꯤꯕꯁꯤ ꯁꯨꯅꯨꯅꯨꯡꯈꯛꯇ ꯅꯠꯇꯅ, ꯂꯤꯄꯤꯗ, ꯄ꯭ꯔꯣꯇꯤꯟ, ꯆꯤꯅꯤ ꯑꯃꯁꯨꯡ ꯀꯥꯔꯕꯣꯍꯥꯏꯗ꯭ꯔꯦꯠꯁꯤꯡꯁꯨ ꯐꯪꯍꯟꯕ ꯉꯝꯃꯤ꯫ ꯃꯈꯣꯏꯁꯤ ꯕꯥꯏꯑꯣꯐ꯭ꯌꯨꯜ, ꯆꯤꯟꯖꯥꯛ ꯑꯃꯁꯨꯡ ꯑꯀꯦ-ꯑꯃꯧꯒꯤ ꯄꯣꯠꯁꯤꯡ ꯄꯨꯊꯣꯛꯄꯗ ꯁꯤꯖꯤꯟꯅꯕ ꯌꯥꯏ꯫ ꯑꯗꯨꯅ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯁꯤ ꯌꯣꯛꯄꯅ ꯂꯝ ꯀꯌꯥꯗ ꯀꯥꯟꯅꯕ ꯄꯤꯕ ꯉꯝꯒꯅꯤ ꯍꯥꯏꯔꯤ꯫ ꯁꯨꯅꯨꯅꯨꯡ ꯑꯃꯁꯨꯡ ꯑꯇꯣꯞꯄ ꯄꯣꯠꯊꯣꯛꯁꯤꯡꯁꯤ ꯏꯟꯗꯁꯇ꯭ꯔꯤꯒꯤ ꯊꯥꯛꯇ ꯍꯦꯛ ꯉꯝꯂꯤꯕꯃꯈꯩ ꯊꯨꯅ ꯄꯨꯊꯣꯛꯄ ꯉꯝꯅꯕꯒꯤꯗꯃꯛ ꯌꯨ ꯑꯦꯟ ꯁꯤ ꯗꯕ꯭ꯂꯤꯌꯨꯒꯤ ꯑꯜꯒꯥꯜ ꯔꯤꯁꯣꯔꯁꯦꯁ ꯀꯂꯦꯛꯁꯟꯅ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯒꯤ ꯍꯦꯟꯅ ꯐꯕ ꯁ꯭ꯇ꯭ꯔꯦꯟꯁꯤꯡ ꯊꯤꯕꯒꯤ ꯊꯕꯛ ꯄꯥꯏꯈꯠꯄ ꯍꯧꯈ꯭ꯔꯦ; ꯑꯗꯨꯒ ꯑꯦꯟ ꯑꯥꯔ TK ꯑꯦꯜꯅ ꯑꯜꯒꯥꯜ ꯔꯤꯁꯣꯔꯁꯦꯁ ꯕꯥꯏꯑꯣꯃꯥꯁꯄꯨ ꯕꯥꯏꯑꯣꯐ꯭ꯌꯨꯜꯁꯤꯡ ꯑꯃꯁꯨꯡ ꯕꯥꯏꯑꯣ-ꯕꯦꯖꯗ ꯄꯗ꯭ꯔꯛꯠꯁꯤꯡꯗ ꯑꯣꯟꯊꯣꯛꯍꯟꯕ ꯉꯝꯕ ꯃꯣꯂꯤꯀ꯭ꯌꯨꯂꯔ ꯑꯃꯁꯨꯡ ꯑꯅꯥꯂꯤꯇꯤꯀꯜ ꯇꯨꯜꯁꯤꯡ ꯁꯦꯝꯒꯠꯄ ꯍꯧꯈ꯭ꯔꯦ꯫
ꯌꯨꯝ ꯀꯩ ꯑꯃꯁꯨꯡ ꯂꯝꯕꯤ-ꯊꯣꯡꯅꯆꯤꯡꯕ ꯁꯦꯝꯒꯠ ꯁꯥꯒꯠꯄꯗ ꯃꯥꯂꯦꯝꯗ ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤꯁꯤꯒꯤ ꯃꯍꯨꯠꯇ ꯕꯥꯏꯑꯣꯖꯦꯅꯤꯛ ꯑꯣꯏꯕ ꯁꯨꯅꯨꯅꯨꯡꯁꯤꯡꯗꯒꯤ ꯁꯨꯡꯕ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤꯅ ꯃꯍꯨꯠ ꯁꯤꯟꯗꯣꯛꯄ ꯉꯝꯂꯕꯗꯤ, ꯆꯍꯤ ꯈꯨꯗꯤꯡꯒꯤ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗꯀꯤ ꯌꯥꯝꯈ꯭ꯔꯕ ꯒꯤꯒꯥꯇꯟ 2 ꯗꯤ ꯅꯨꯡꯁꯤꯠꯇ ꯊꯥꯗꯣꯔꯛꯄꯗꯒꯤ ꯀꯟꯕ ꯉꯝꯒꯅꯤ ꯑꯗꯨꯒ ꯅꯨꯡꯁꯤꯠꯇ ꯌꯥꯎꯔꯤꯕ ꯀꯥꯔꯕꯟ ꯗꯥꯏꯑꯣꯛꯁꯥꯏꯗ ꯃꯤꯂꯤꯌꯟ ꯇꯟ 250 ꯗꯒꯤ ꯍꯦꯟꯅ ꯂꯧꯊꯣꯛꯂꯒ ꯑꯁꯤꯒꯨꯝꯕ ꯃꯈꯜꯒꯤ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤꯁꯤ ꯁꯨꯡꯕꯗ ꯁꯤꯖꯤꯟꯅꯈꯤꯕ ꯌꯥꯒꯅꯤ ꯍꯥꯏꯕꯒꯤ ꯋꯥꯐꯝꯁꯨ ꯊꯤꯖꯤꯟ ꯂꯨꯞ ꯑꯁꯤꯅ ꯐꯣꯡꯗꯣꯛꯂꯤ꯫ ꯃꯥꯏꯀ꯭ꯔꯣꯑꯜꯖꯤꯕꯨ ꯁꯨꯅꯨꯅꯨꯡ ꯄꯨꯊꯣꯛꯄꯒꯤ ꯊꯕꯛ ꯑꯁꯤ ꯄꯥꯡꯊꯣꯛꯅꯕꯒꯤ ꯇꯦꯛꯅꯣ ꯑꯁꯤ ꯂꯩꯔꯕꯅꯤꯅ, ꯑꯗꯨꯒ ꯃꯁꯤꯗ ꯄꯨꯛꯅꯤꯡ ꯆꯪꯕ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯄꯨꯊꯣꯛꯄ ꯄꯥꯝꯕ ꯀꯝꯄꯦꯅꯤ ꯀꯌꯥꯃꯨꯛ ꯊꯣꯔꯛꯂꯕꯅꯤꯅ, ꯕꯥꯏꯑꯣꯖꯦꯅꯤꯛ ꯑꯣꯏꯕ ꯕꯤꯂꯥꯇꯤꯃꯥꯇꯤ ꯄꯨꯊꯣꯛꯄꯒꯤ ꯊꯕꯛꯁꯤ ꯆꯍꯤ ꯈꯔꯒꯤ ꯃꯅꯨꯡꯗꯗꯤ ꯃꯪꯐꯥꯎꯅꯕꯁꯨ ꯉꯝꯂꯒꯅꯤ ꯍꯥꯏꯔꯤ꯫=

ꯐꯡꯦ Srubar ꯑꯃꯁꯨꯡ ꯕꯥꯏꯑꯣꯖꯦꯅꯤꯛ ꯑꯣꯏꯕ ꯁꯨꯅꯨꯅꯨꯡꯗꯒꯤ ꯁꯦꯝꯕ ꯀꯪꯀ꯭ꯔꯤꯠ
ꯪꯀꯦꯅ ꯍꯇ ꯈꯖꯡꯦꯦꯧ ꯒꯤ ꯃꯅꯥꯀꯛꯇ Coccolithophore ꯁꯤꯡꯕꯨ ꯁ꯭ꯄꯦꯁꯇꯒꯤ ꯎꯕꯒꯤ ꯁꯛꯇꯝ
ꯃꯥꯡꯈ꯭ꯔꯕ ꯃꯇꯝ ꯑꯃꯨꯛ ꯍꯜꯂꯛꯂꯔꯣꯏ

- ÿ- ꯑꯦꯗꯤꯇꯔꯗ ꯊꯥꯔꯛꯄ ꯆꯤꯊꯤ¡ -ÿ-

ꯏꯀꯥꯏꯈꯨꯝꯅꯖꯔꯤꯕ ꯑꯦꯗꯤꯇꯔ,
ꯃꯅꯤꯄꯨꯔꯤ ꯈꯨꯟꯅꯥꯏ ꯑꯁꯤ ꯗ꯭ꯔꯒꯀꯤꯅ ꯅꯤꯡꯊꯧ ꯑꯗꯨꯒ ꯐꯦꯁꯇꯤꯕꯦꯜꯒꯤꯅ ꯃꯍꯥꯔꯥꯅꯤ ꯍꯥꯏꯕꯗ ꯄꯛꯆꯔꯦ꯫ ꯈꯨꯟꯅꯥꯏ ꯑꯁꯤ ꯏꯊꯛ-ꯏꯔꯥꯡꯗ ꯇꯥꯎꯗꯨꯅ ꯄꯥꯏꯔꯒ ꯍꯤꯡꯕꯒ ꯆꯞ ꯃꯥꯟꯅꯔꯤ꯫ ꯂꯝꯗꯝ ꯑꯁꯤꯒꯤ ꯃꯤꯌꯥꯝꯒꯤ ꯂꯥꯏꯐ ꯁꯥꯏꯀꯜ ꯑꯁꯤ ꯑꯃꯨꯛꯇ ꯈꯟꯊꯗꯨꯅ ꯌꯦꯡꯁꯤ꯫ ꯆꯍꯤꯒꯤ ꯀꯦꯂꯦꯟꯗꯔꯗ ꯑꯉꯥꯡꯕ ꯃꯆꯨꯅ ꯏꯔꯤꯕ ꯇꯥꯔꯤꯈꯁꯤꯡꯁꯤ ꯌꯥꯝꯅ ꯌꯥꯝꯂꯤ꯫ ꯂꯦꯞꯇꯦ ꯀꯨꯝꯃꯩꯗꯤ꯫ ꯆꯍꯤ ꯑꯃꯗ ꯅꯣꯡꯃꯥꯏꯖꯤꯡ 52 ꯂꯩꯔꯤ꯫ ꯁꯦꯀꯦꯟꯗ ꯁꯦꯇꯔꯗꯦꯅ ꯅꯨꯃꯤꯠ 12 ꯈꯛ ꯑꯣꯏꯔꯤ꯫ ꯑꯇꯣꯞꯄ ꯑꯉꯥꯡꯕ ꯅꯨꯃꯤꯠꯁꯤꯡ 33 ꯁꯨ ꯄꯕ꯭ꯂꯤꯛ ꯍꯣꯂꯤꯗꯦ ꯑꯣꯏꯅ ꯏꯔꯒ ꯐꯣꯡꯂꯤ꯫ ꯑꯁꯨꯝꯅ ꯄꯨꯜꯂꯞꯅ ꯅꯨꯃꯤꯠ ꯃꯁꯤꯡꯁꯤ 97 ꯑꯣꯏꯔꯤ꯫ ꯃꯁꯤ ꯅꯠꯇꯕ ꯑꯟꯑꯣꯐꯤꯁꯜ ꯍꯣꯂꯤꯗꯦ ꯃꯁꯤꯡ ꯊꯤꯕ ꯉꯝꯗꯅ ꯂꯩꯔꯤ꯫ ꯃꯔꯨ ꯑꯣꯏꯅ ꯄꯕ꯭ꯂꯤꯛ ꯍꯣꯂꯤꯗꯦ, ꯖꯅ꯭ꯌꯨꯋꯥꯔꯤ ꯊꯥꯗꯗꯤ - ꯆꯍꯤ ꯍꯧꯕ, ꯒꯥꯟ ꯉꯥꯏ ꯑꯃꯁꯨꯡ ꯔꯤꯄ꯭ꯂꯤꯛ ꯗꯦꯒꯤ ꯄꯦꯔꯗ ꯑꯗꯨ ꯌꯦꯡꯂꯨꯅꯕ ꯆꯠꯆꯩ꯫ ꯀꯨꯝꯃꯩꯁꯤꯡꯒꯤ ꯃꯊꯪ ꯃꯊꯪ ꯚꯦꯂꯦꯟꯇꯥꯏꯟ ꯗꯦ, ꯄ꯭ꯂꯦꯌꯔꯁ ꯗꯦ, ꯌꯥꯎꯁꯪ ꯅꯨꯃꯤꯠ ꯃꯉꯥꯅꯤꯒꯤ ꯂꯣꯏꯅꯅ ꯊꯥ ꯑꯃ ꯍꯦꯟꯅ ꯊꯥꯕꯜ ꯆꯣꯡꯕ, ꯃꯩꯇꯩ ꯆꯩꯔꯥꯎꯕ, ꯒꯧꯔ ꯆꯩꯔꯥꯎꯕ, ꯒꯨꯗ ꯐ꯭ꯔꯥꯏꯗꯦ, ꯈꯣꯡꯖꯣꯝ ꯗꯦꯅꯆꯤꯡꯕ ꯑꯦꯄ꯭ꯔꯤꯜ ꯊꯥ ꯐꯥꯎꯕꯗ ꯄꯥꯡꯊꯣꯛꯂꯤ꯫
ꯏꯗꯨꯜ ꯐꯤꯇꯔ, ꯂꯥꯏ ꯍꯔꯥꯎꯕꯒꯤ ꯀꯨꯝꯃꯩꯁꯤ ꯊꯥ 2/3 ꯍꯦꯟꯅ ꯆꯠꯊꯔꯤ꯫ ꯉꯝꯈꯩ ꯀꯟꯕ ꯅꯨꯃꯤꯠ, ꯖꯨꯟ 18 ꯃꯅꯤꯄꯨꯔꯒꯤ ꯏꯇꯤꯍꯥꯁꯀꯤ ꯅꯨꯃꯤꯠꯅꯤ꯫ ꯔꯊ ꯖꯇ꯭ꯔꯥ (ꯀꯥꯡ), ꯑꯣꯒꯁꯠ 13, ꯑꯣꯒꯁꯠ 15, ꯑꯣꯒꯁꯠ 27 ꯆꯥꯛꯂꯥꯝ ꯈꯣꯡꯆꯠ, ꯖꯅ ꯅꯦꯇꯥ ꯍꯤꯖꯝ ꯏꯔꯥꯕꯠ - ꯁꯦꯞꯇꯦꯝꯕꯔ 30, ꯗꯤꯋꯥꯂꯤ, ꯗꯨꯔꯒꯥ ꯄꯨꯖꯥ, ꯅꯤꯡꯉꯣꯜ ꯆꯥꯛꯀꯧꯕ, ꯈ꯭ꯔꯤꯁꯠꯃꯥꯁꯅꯆꯤꯡꯕ - ꯑꯣꯐꯤꯁꯜ ꯑꯣꯏꯕ ꯅꯠꯇ꯭ꯔꯒ ꯑꯣꯏꯗꯕ, ꯀꯔꯤꯁꯨ ꯊꯣꯏꯅ ꯈꯦꯟꯅꯗ꯭ꯔꯕ ꯂꯝꯗꯝꯅꯤ꯫ ꯃꯇꯝꯒꯤ ꯃꯃꯜꯁꯤ ꯑꯩꯈꯣꯏ ꯈꯪꯗꯔꯦ꯫
ꯆꯍꯤ ꯑꯃꯒꯤ ꯊꯥ 12 ꯑꯁꯤꯒꯤ ꯃꯅꯨꯡꯗ ꯊꯥ 3 ꯐꯥꯅ ꯊꯕꯛ ꯁꯨꯗ꯭ꯔꯕ ꯂꯩꯕꯥꯛꯅꯤ꯫ ꯑꯣꯟꯊꯣꯛꯄ, ꯑꯉꯛꯄ ꯈꯨꯟꯅꯥꯏꯅꯤ꯫ ꯊꯕꯛ ꯁꯨꯕꯗ ꯏꯀꯥꯏꯔꯣꯏꯁꯤ꯫ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯇꯝꯄꯥꯛꯀꯤ ꯃꯐꯝ ꯑꯃꯗ ꯍꯦꯛ ꯆꯠꯂꯨꯕꯗ ꯂꯥꯏ ꯍꯔꯥꯎꯕꯒꯤ ꯈꯣꯟꯖꯦꯜ ‘ꯅꯨꯡꯉꯥꯏꯔꯦ, ꯍꯔꯥꯎꯔꯦ, ꯌꯥꯏꯐꯔꯦ’ ꯃꯥꯏꯛꯇ ꯂꯥꯎꯕꯒꯤ ꯑꯍꯧꯕ ꯈꯣꯟꯖꯦꯜ ꯇꯥꯏ꯫ ꯃꯄꯨꯟꯁꯤ ꯆꯨꯞꯄ ꯀꯔꯤꯁꯨ ꯀꯥꯟꯅꯕ ꯑꯃꯠꯇ ꯇꯧꯔꯝꯗꯅ ꯂꯣꯏꯈꯤꯕ ꯃꯤ ꯌꯥꯝꯅ ꯂꯩ꯫ ꯑꯗꯨꯒꯨꯝꯕ ꯈꯔꯗꯤ ꯃꯆꯤ ꯃꯆꯤꯗ ꯍꯤꯡꯂꯤ꯫

ꯂꯥꯎ ꯈꯣꯡꯂꯤꯕ, ꯏꯊꯛ ꯏꯔꯥꯡꯒꯤ ꯊꯕꯛ ꯊꯧꯔꯝꯁꯤ ꯈꯔ ꯍꯟꯊꯍꯟꯅꯕ ꯃꯤꯌꯥꯝꯁꯨ ꯋꯥꯈꯜ ꯌꯥꯝꯅ ꯃꯨꯟꯅ ꯈꯟꯊꯃꯤꯟꯅꯁꯤ, ꯍꯦꯟꯃꯟꯈ꯭ꯔꯦ꯫ ꯅꯤꯔꯒ ꯍꯤꯡꯕꯁꯤ ꯏꯀꯥꯏꯐꯝ ꯊꯣꯛꯇ꯭ꯔ? ꯃꯅꯤꯄꯨꯔ ꯃꯤꯌꯥꯝ ꯍꯨꯃꯥꯡ ꯇꯥꯅ ꯊꯕꯛ ꯁꯨꯗꯔꯦ꯫ ꯂꯝꯕꯤ ꯁꯔꯛꯇ ꯊꯕꯛ ꯁꯨꯕꯒꯤ ꯗ꯭ꯔꯦꯁ ꯁꯦꯠꯂꯒ ꯆꯠꯄ ꯃꯤ TB ꯎꯗ꯭ꯔꯦ꯫ ꯆꯥꯕ ꯊꯛꯄꯒꯤ ꯗ꯭ꯔꯦꯁ ꯉꯥꯛꯅꯤ꯫ ꯍꯨꯃꯥꯡ ꯖꯣꯔꯣ ꯖꯣꯔꯣ ꯇꯥꯅ ꯊꯕꯛ ꯁꯨꯔꯤꯕ ꯃꯤ ꯑꯃꯠꯇꯗ ꯃꯈꯜ ꯑꯃꯠꯇꯒꯤ ꯂꯥꯏꯅꯥ ꯅꯥꯔꯣꯏ꯫ ꯑꯇꯟꯕ, ꯐꯠꯇꯕ, ꯑꯣꯛꯇꯕ ꯃꯤꯗꯤ ꯑꯩꯆ ꯑꯥꯏ ꯚꯤ ꯃꯍꯤꯛꯇꯒꯤ ꯍꯦꯟꯅ ꯁꯥꯊꯤ꯫ ꯃꯈꯣꯏꯒꯨꯝꯕꯁꯤ ꯃꯤꯑꯣꯏꯕ ꯈꯨꯟꯅꯥꯏꯒꯤ ꯌꯦꯛꯅꯕꯅꯤ꯫
ꯁꯉꯥꯏ ꯐꯦꯁꯇꯤꯕꯦꯜ, ꯁꯤꯔꯨꯏ ꯐꯦꯁꯇꯤꯕꯦꯜꯅꯆꯤꯡꯕꯁꯤꯡꯕꯨ ꯀꯔꯝꯕ ꯃꯈꯜꯒꯤ ꯗꯤꯚꯂꯞꯃꯦꯟꯠ ꯃꯅꯤꯄꯨꯔ ꯈꯨꯟꯅꯥꯏꯗ ꯄꯨꯔꯛꯈ꯭ꯔꯕꯒꯦ? ꯁ꯭ꯃꯣꯜ ꯁ꯭ꯀꯦꯜ ꯏꯟꯗꯁꯇ꯭ꯔꯤꯒꯤ ꯃꯤꯠꯀꯤ ꯀꯨꯝꯃꯩꯔ? ꯍꯔꯥꯎ ꯀꯨꯝꯃꯩꯁꯤꯡꯁꯤꯅ ꯃꯅꯤꯄꯨꯔ ꯃꯤꯌꯥꯝꯗ ꯀꯔꯤ ꯍꯦꯟꯅ ꯌꯥꯏꯐꯕ ꯄꯨꯔꯛꯂꯤꯕꯒꯦ?
ꯄꯨꯟꯁꯤꯒꯤ ꯌꯥꯝꯂꯕ ꯃꯇꯝꯁꯤ ꯀꯔꯝꯕ ꯊꯕꯛꯇ ꯃꯥꯡꯂꯤ? ꯊꯥ 5/6 ꯅꯣꯡ ꯇꯥꯕ ꯃꯐꯝꯁꯤꯗ ꯏꯁꯤꯡ ꯂꯩꯅꯔꯤꯕ ꯑꯁꯤꯅꯤ꯫ ꯏꯁꯤꯡ ꯇꯨꯡꯁꯟꯅꯕꯒꯤ ꯁꯤꯃꯦꯟꯠꯒꯤ ꯋꯥꯇꯔ ꯇꯦꯡꯛ ꯑꯃ ꯁꯥꯔꯒ ꯊꯝꯕꯒꯤ ꯃꯍꯨꯠꯇ ꯏꯁꯤꯡꯅ ꯍꯥꯞꯂꯒ ꯇꯧꯕ ꯌꯥꯗꯦ ꯈꯪꯅ-ꯈꯪꯅ ꯀꯥꯔ ꯑꯃ ꯂꯩꯔꯒ ꯇꯣꯡꯂꯤꯕ ꯃꯤꯌꯥꯝꯅꯤ꯫ ꯏꯟꯗꯤꯌꯥꯒꯤ ꯗꯤꯐꯦꯟꯁ ꯃꯤꯅꯤꯁꯇꯔ ꯑꯣꯏꯔꯝꯕ ꯁ꯭ꯔꯤ ꯑꯦꯟꯊꯣꯅꯤꯗꯨ ꯑꯩꯍꯥꯛꯅ ꯌꯥꯎꯔꯨꯕ ꯃꯤꯇꯤꯡ ꯑꯗꯨꯒꯤ ꯆꯤꯐ ꯒꯦꯁꯠ ꯑꯣꯏꯅ ꯂꯥꯛꯄꯗ ꯑꯦꯝꯕꯦꯁꯦꯗꯔ ꯀꯥꯔ ꯑꯃꯗ ꯃꯍꯥꯛ ꯃꯁꯥꯅꯦ, ꯄꯤ ꯑꯦꯁ ꯑꯣ ꯑꯅꯤ ꯑꯃꯗꯤ ꯗ꯭ꯔꯥꯏꯚꯔꯒ ꯃꯈꯣꯏ ꯃꯔꯤꯈꯛ ꯂꯥꯛꯏ꯫ ꯑꯆꯧꯕ ꯋꯥꯈꯜ ꯈꯟꯕ ꯃꯤꯗꯤ ꯏꯆꯝ ꯆꯝꯕꯅꯤ꯫ ꯐꯝꯅꯥꯏꯕꯁꯤꯡꯅ ꯐꯪꯂꯤꯕ ꯈꯨꯗꯣꯡꯆꯥꯕꯁꯤꯡꯁꯤ ꯃꯤꯆꯝ ꯃꯤꯌꯥꯝꯗꯒꯤ ꯈꯣꯝꯒꯠꯈꯤꯕ ꯇꯦꯛꯁꯁꯤꯡꯗꯒꯤꯅꯤ꯫ ꯒꯥꯔꯤ 20 ꯄꯨꯔꯒ/ꯆꯠꯂꯒ ꯀꯔꯤ ꯃꯤꯡꯊꯣꯜ ꯊꯝꯂꯝꯒꯗꯧꯔꯤ?

ꯑꯗꯣꯝꯒꯤ - ꯀꯔꯅꯦꯜ ꯑꯩꯆ ꯁꯔꯠ (ꯔꯤꯇꯥꯏꯌ꯭ꯔꯗ)
ꯋꯥꯡꯈꯩ, ꯏꯝꯐꯥꯜ

Coccolithophore [aqb sbNKgMmgq Coccolith
ꯀꯤ ꯁ꯭ꯀꯦꯅꯤꯡ ꯏꯂꯦꯛꯇ꯭ꯔꯣꯟ ꯃꯥꯏꯀ꯭ꯔꯣꯒ꯭ꯔꯥꯐ